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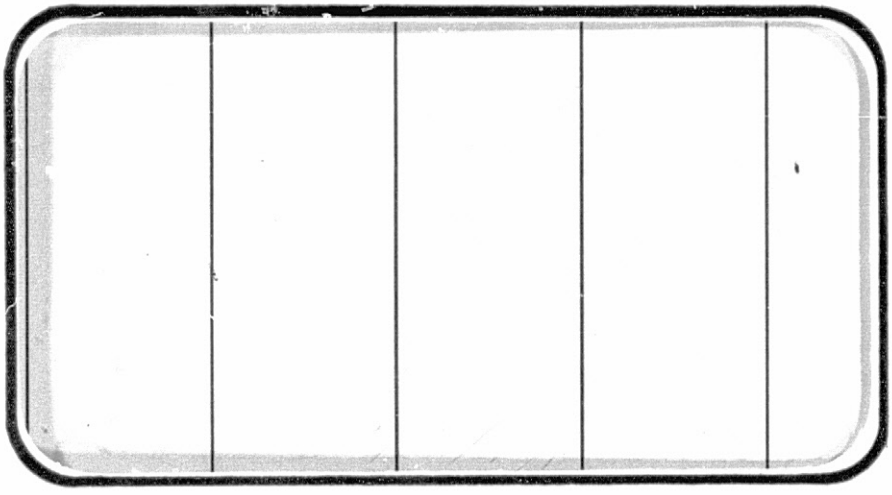

SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANagement services

SPACE DIVISION CHRYSLER CORPORATION

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A LOW SPEED WIND TUNNEL TEST OF A 0.050 SCALE MODEL OF SHUTTLE ORBITER (MODEL 089B) TO INVESTIGATE THE LONGITUDINAL AND LATERAL DIRECTIONAL EFFECTS OF CANARD AND TAIL CONFIGURATIONAL MODIFICATIONS IN THE LTV LSWT (MA14)

by

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Prepared under NASA Contract Number NAS9-13247

by

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for

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number:	LTV LSWT 422
NASA Series Number:	MA14
Model Number:	089B
Occupancy Hours:	61.75
Test Dates:	April 24 to May 2, 1973

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Chrysler Corporation Space Division assumes no responsibility for the data presented other than display characteristics.

A LOW SPEED WIND TUNNEL TEST OF A 0.050 SCALE MODEL OF SHUTTLE ORBITER (MODEL 089B) TO INVESTIGATE THE LONGITUDINAL AND LATERAL DIRECTIONAL EFFECTS OF CANARD AND TAIL CONFIGURATIONAL MODIFICATIONS IN THE LTV LSWT (MA14)

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ABSTRACT

An experimental investigation was conducted in the LTV Low Speed Wind Tunnel (test 422) to determine the effects of 6 canard configurations on the 0.050 scale model of Shuttle Orbiter 089B. In addition, two horizontal tail configurations were tested at two positions on the model as were two wing configurations. Since this test was restricted to 103 runs, only a limited number of permutations of the configurational changes could be tested.

The testing was done in the 15 by 20 foot section of the LSWT and consisted of pitch polars, one yawed polar and several yaw runs. The pitch polars encompassed an alpha range from 0 to 28 degrees; the yawed polar was run at beta = +2 degrees and the yaw runs covered a beta range from -6 to +6 degrees at angles-of-attack of 0, 4, 10, 16, and 20 degrees.

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SCHEDULE OF COEFFICIENTS PLOTTED:

(A) C_L, C_m vs. α

C_m vs. C_L

(B) C_Y, C_n, C_ℓ vs. β

(C) C_Y, C_n, C_ℓ vs. α

CONDITIONS VARYING:

(1) CONFIG.

(2) CONFIG., TAIL INCIDENCE

(3) ELEVN

(4) CONFIG., ALPHA

(5) BETA

NOMENCLATURE
General

SYMBOL	MNEMONIC	DEFINITION
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient; $(p_l - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m^2, psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m^2, psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m^3, $slugs/ft^3$
	Reference & C.G. Definitions	
A_b		base area; m^2, ft^2
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
ℓ_{REF} $\bar{c}$	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m^2, ft^2
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE
(Continued)

Stability-Axis System

SYMBOL	MNEMONIC	DEFINITION
C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS\ell_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qSb}$
C_ℓ	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qSb}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
δ_e	ELEVN	elevon deflection; degrees

CONFIGURATIONS INVESTIGATED

The basic 0.050 scale model of the NASA-JSC Shuttle Orbiter 089B consisted of a wood fuselage with machined aluminum wing spars and vertical fin. All wood surfaces were covered with a layer of glass fiber for added strength.

The fuselage contained a stainless steel beam which was fastened to the adapter of the VSD VTB-6 internal strain-gage balance. An electrolytic bubble package which was used to measure model pitch angles was installed in the model adjacent to the root section of the left wing.

The wing assembly was fastened to the fuselage support block. The elevons were machined of aluminum and were attached to the wing spars by spanwise steel rods. The inboard end of the rods were attached to manually adjustable deflection brackets.

Two sizes of horizontal tails were tested at a high and low position on the aft fuselage section. Other configurations tested were a gothic canard which was mounted at three positions on the forward section of the fuselage and three switch-blade canards which were installed at the fuselage intersect point of the wing/glove combination.

Transition strips of Number 36 grit were applied to the upper and lower surfaces of the wings and horizontal tails; both sides of the vertical tail and to the fuselage nose. The grit strips varied in width from 0.125 to 0.188 inches and were applied at 10 percent chord.

CONFIGURATIONS INVESTIGATED (Concluded)

The configurational designations employed during this test were as follows:

B1	Basic orbiter body
V1	Basic orbiter vertical tail
W1	Basic orbiter wing
W2	Basic orbiter wing modified to include leading edge glove
H1	Horizontal Tail 1
H2	Horizontal Tail 2
F	Horizontal Tail fairing
H1F (X, Y)	Horizontal Tail 1 with fairings and located at position X with an incidence angle of Y
H2F (X, Y)	Horizontal Tail 2 with fairings and located at position X with an incidence angle of Y
GC1	Gothic canard at position 1
GC2	Gothic canard at position 2
GC3	Gothic canard at position 3
SC1	Switch-blade canard 1
SC2	Switch-blade canard 2
SC3	Switch-blade canard 3

Corresponding model dimensional data may be found in table III.

TEST FACILITY DESCRIPTION

The Vought Systems Division Low Speed Wind Tunnel is a horizontal, single-return facility having tandem test sections of 7 by 10 and 15 by 20 feet. The test dynamic pressure is generated by a 20-foot diameter, six-blade, fixed-pitch propeller which is driven by a 1500-horsepower electric motor. A test velocity of 230 miles per hour may be obtained in the 7 by 10 test section with a test velocity of 52 miles per hour obtainable in the 15 by 20 foot test section.

This test utilized the 15 by 20 foot test section.

INSTRUMENTATION AND TEST CONDITIONS

The model was installed in the test section on the VSD VTB-6 internal strain gage balance. The balance was fastened to a straight sting which was attached to the offset sting adapter (LST289, sheet 3) of the standard support system. The balance as installed was rolled -90 degrees with respect to the model. This was done to use the more sensitive side force gages of the balance to measure model normal force and pitching moment.

The model geometric angle of attack was set with gravity-sensing, electrolytic levels. The levels were fastened to a bracket which was mounted to the fuselage beam adjacent to the left wing. A separate level was used to measure each angle of attack.

Testing was conducted at a low Reynolds and Mach number, and nominal valves for these conditions may be found in table I. The run schedule was comprised of several pitch polars (with alpha varying between 0 and 28 degrees) several yaw runs and one yawed polar. Specific test conditions for each run may be found in table II.

DATA REDUCTION

Raw counts from the VTB-6 internal strain-gage balance were converted to six-component force and moment data (lift, drag, pitching moment, side force, yawing moment, and rolling moment) and reduced to coefficients. The data were resolved about the model moment reference center and referenced to body and stability axes. Corrections were made for the effects of solid and wake blockage and static weight tares. The balance was installed such that it was rolled -90 degrees with respect to the model to facilitate utilization of the more sensitive side force strain gages in the pitch plane.

Data Reduction Factors

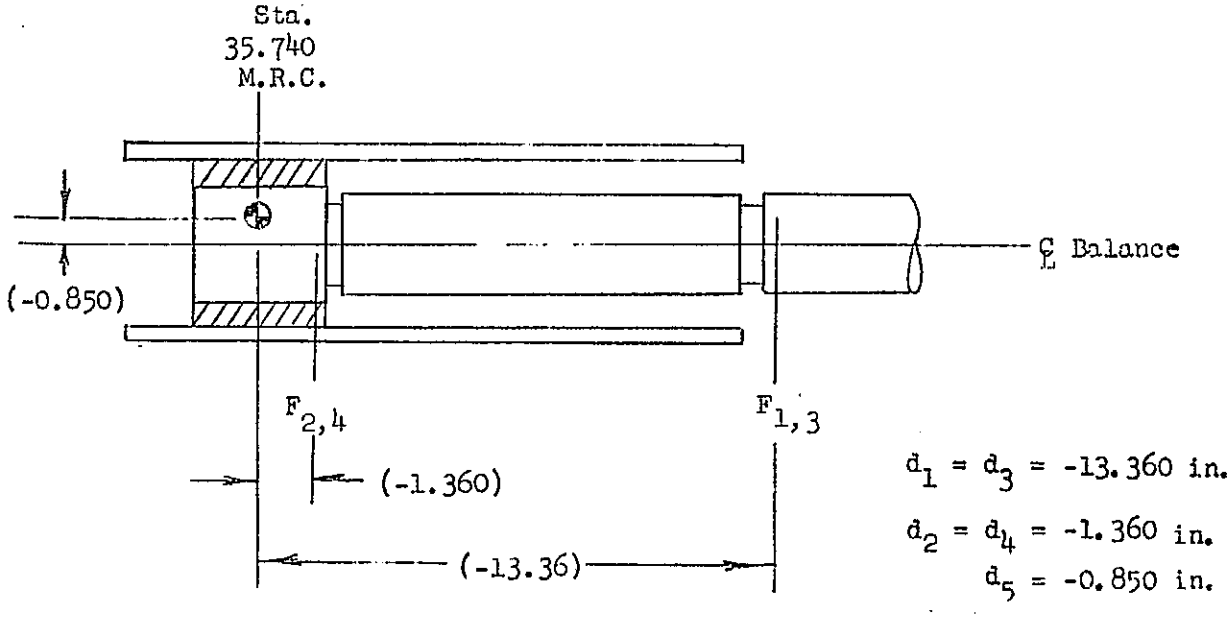
SREF = 1231.200 inches^2

LREF = 25.355 inches

BREF = 55.790 inches

q = 6.60 pounds per square foot

Balance "d" Distances



DATA REDUCTION (Concluded)

Blockage and Compressibility Correction

The blockage and compressibility corrections were combined into one expression and applied to q_{set}(piezometer differential pressure). This enabled the test dynamic pressure to be set to a predetermined value.

$$q_{set} = q\left(\frac{1}{5.20 \times q_u/q_{piez}}\right)(1 + M^2/4)\left(\frac{1}{1 + 2\varepsilon_b}\right)$$

where:

q_{set} = piezometer differential pressure, inches of water

q = desired test dynamic pressure, pounds per square foot

q_u/q_{piez} = piezometer calibration factor

$1 + M^2/4$ = compressibility correction term where M = Mach Number

$\frac{1}{1 + 2\varepsilon_b}$ = solid and wake blockage correction

$\varepsilon_b = \frac{1}{4}\frac{\text{Model Frontal Area}}{\text{Test section cross-sectional area}}$

Test data appearing in the plotted figures and appendix have been resolved to the stability axis system.

TABLE I.

TEST : MA14 (LTV LSWT 422) DATE :

TEST CONDITIONS

MACH NUMBER	AVERAGE REYNOLDS NUMBER (per foot)	DYNAMIC PRESSURE (pounds/sq. foot)	STAGNATION TEMPERATURE (degrees Fahrenheit)
.067	$.450815 \times 10^6$	6.60	95

BALANCE UTILIZED: VTB-6

	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:
NF			
SF			
AF			
PM			
RM			
YM			

COMMENTS:

TABLE II.

TEST: MA14 (LTV LSWT 422) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δa	M			NO. OF RUNS	ALPHA 0	4	10	16	20	BETA 0	2			
RFH001	W2B1V1	A	0	0	.07			1						1				
02		B	A	0				5	2	3	4	5	6					
03		A	0	-10				1						7				
04				+10										8				
05	H1F(1,0)			0										10				
06		B	A	0				5	11	12	13	14	15					
07		A	0	-10				1						16				
08				+10										17				
09	H1F(1,+10)			+10										18				
10				-10										19				
11				0										20				
12	H1F(1,-10)			0										21				
13				-10										22				
14				+10										23				
15	H2F(1,0)			+10										24				
16				-10										25				
17				0										26				

TEST RUN NUMBERS

CL	CD	CLM	CY	CSL	CLN				α or β	β or α	6

TYPE OF DATA α OR β SCHEDULES — COEFFICIENT SCHEDULES — IDVAR (1) — IDVAR (2) — NDV

α: A) FROM 0 TO 28; Δα = 2
B) 0, 4, 10, 16, 20
C) FROM 0 TO STALL
D) 0, 10, 20

β: A) -6, -4, 0, 2, 4, 6

TABLE II. (Continued)

TEST : MA14 (LTV LSWT 422) DATA SET/RUN NUMBER COLLATION SUMMARY DATE :

DATA SET IDENTIFIER	CONFIGURATION		SCHD. α	SCHD. β	PARAMETERS/VALUES δ_R	M			NO. OF RUNS	ALPHA 0	4	10	16	20	BETA 0	2			
RFH018	W2B1V1	H2F(1,0)	B	A	0	.07			5	27	28	29	30	31					
19		H2F(1,+10)	A	0	0				1						32				
20					-10										33				
21					+10										34				
22		H2F(2,0)			0										35				
23			D	A					3	36		37		38					
24		H1F(2,0)	D	A					3	39		40		41					
25			A	0					1						42				
26		SC1	A	0					1						44				
27			D	A					3	45		46		47					
28			A	0	+10				1						48				
29					-10										49				
30		SC2			0										50				
31			D	A					3	51		52		53					
32		SC3	D	A					3	54		55		56					
33			A	0					1						57				
34		GC1	A	0					1						60				

TEST RUN NUMBERS

CL	CD	CLM	CY	CSL	CLN				α OR β	β OR α	6

TYPE OF DATA COEFFICIENT SCHEDULES IDVAR (1) IDVAR (2) NDV

α OR β SCHEDULES

TABLE II. (Continued)

TEST: MA14 (LTV LSWT 422)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	M			NO. OF RUNS	ALPHA 0	4	10	16	20	BETA 0	2			
RFHQ35	W2B1V1 GC3	A	O	0	.07			1						61				
36	GC2	A	O											62				
37		D	A					3	63		64		65					
38		A	O	+10				1						66				
39				-10										67				
40				0										68				
41	W1B1V1													75				
42		D	A					3	76		77		78					
43		A	O	-10				1						79				
44				+10										80				
45	GC2			+10										81				
46				-10										82				
47				0										83				
48		D	A					3	84		85		86					
49	GC1	A	O					1						88				
50	GC3	A												87				
51	B1V1 GC2	C		OFF										89				

TEST RUN NUMBERS

CL, CD, CLM, CY, CSL, CLN, α OR β, β OR α, 6

TYPE OF DATA

α OR β SCHEDULES

COEFFICIENT SCHEDULES

IDVAR (1) IDVAR (2) NDV

TABLE II. (Continued)

TEST: MA14 (LTV LSWT 422)

DATA SET/RUN NUMBER COLLATION SUMMARY

DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	M			NO. OF RUNS	ALPHA 0	ALPHA 4	ALPHA 10	ALPHA 16	ALPHA 20	BETA 0	BETA 2			
RFH052	B1V1GC2	D	A	OFF	.07			3	90		91		92					
53		D	A					3	93		94		95					
54		A	0					1						96				
55	W2B1V1SC3			+10										58				
56				-10										59				
57	W1B1V1H2F(1,0)			0										74				
58	(1,+10)													73				
59	(1,-10)													72				
60	W2B1V1H2F													69				
61				-10										70				
62				+10										71				
63	SC2			+10										99				
64				-10										100				
65			+2	0											101			
66		16	A									102						
67	SC1											98						
68	GC2											103						

TEST RUN NUMBERS

CL, CD, CLM, CY, CSL, CLN | α OR β | β OR α | 6

TYPE OF DATA α OR β SCHEDULES

COEFFICIENT SCHEDULES

IDVAR (1) IDVAR (2) NDV

TABLE II. (Concluded)

TEST: MA14 (LTV LSWT 422) — DATA SET/RUN NUMBER COLLATION SUMMARY — DATE:

DATA SET IDENTIFIER	CONFIGURATION	SCHD. α	SCHD. β	PARAMETERS/VALUES δ_e	M			NO. OF RUNS	ALPHA 0	4	10	16	20	BETA 0	2			
RFH069	W2B1V1	A	0	0	.07			1						97				
70	W2B1V1H1F(1,0)	↓	↓	↓	↓			↓						9*				
71	W2B1V1F	↓	↓	↓	↓			↓						43**				

TEST RUN NUMBERS

COEFFICIENT SCHEDULES										IDVAR (1)	IDVAR (2)	NDV
CL	CD	CLM	CY	CSL	CLN					α or β	β or α	6

TYPE OF DATA

α OR β SCHEDULES

* No trip strip on horizontal tail

** Run with horizontal tail fairings but without horizontal tail

TABLE III.

MODEL DIMENSIONAL DATA

MODEL COMPONENT : Body - B1

GENERAL DESCRIPTION : A 4.45 inch aft end extension to .05 scale model of 040 body

DRAWING NUMBER :

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length	1404 IN	70.2 IN
Max Width	204 IN	10.2 IN
Max Depth	238 IN	11.9 IN
Fineness Ratio		
Area		
Max. Cross-Sectional		
Planform		
Wetted		
Base		

TABLE III. (Continued)

MODEL DIMENSIONAL DATA

MODEL COMPONENT : Vertical Tail - V1

GENERAL DESCRIPTION

DRAWING NUMBER

DIMENSIONS	FULL SCALE	MODEL SCALE
Area	398.9 FT^2	.99725 FT^2
Span (exposed)	305 IN	15.25 IN
Inb'd exposed chord	315 IN	15.75 IN
Outb'd exposed chord	95 IN	4.75 IN
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord		
At Outb'd equiv. chord		
Sweep Back Angles, degrees		
Leading Edge	45°	45°
Trailing Edge	15°	15°
Hingeline		
Area Moment (Normal to hinge line)		

TABLE III. MODEL DIMENSIONAL DATA (Continued)

MODEL COMPONENT: Basic Wing - W1

GENERAL DESCRIPTION:

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform	3420 FT^2	8.55 FT^2
Wetted		
Span (equivalent)	1115.1 IN	55.755 IN
Aspect Ratio	2.525	2.525
Rate of Taper		
Taper Ratio	.2	.2
Dihedral Angle, degrees	+7°	+7°
Incidence Angle, degrees	+1.5°	+1.5°
Aerodynamic Twist, degrees	0	0
Toe-In Angle	0	0
Cant Angle	0	0
Sweep Back Angles, degrees		
Leading Edge	35°	35°
Trailing Edge	-19.59°	-19.59°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	736.1 IN	36.805 IN
Tip, (equivalent)	147.2 IN	7.36 IN
MAC	507.1 IN	25.355 IN
Fus. Sta. of .25 MAC	993.4 IN	49.67 IN
Fus. Sta. of Apex	714.8 IN	35.74 IN
B.L. of .25 MAC	216.8 IN	10.84 IN
Airfoil Section		
Root		
Tip		
EXPOSED DATA		
Area	2453.6 FT^2	6.134 FT^2
Span, (equivalent)	911.1 IN	45.555 IN
Aspect Ratio	2.350	2.350
Taper Ratio	.234	.234
Chords		
Root	628.3 IN	31.415 IN
Tip	147.2 IN	7.36 IN
MAC	437.5 IN	21.875 IN
Fus. Sta. of .25 MAC	1022.1 IN	51.105 IN
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE III. (Continued)

MODEL COMPONENT: Double Delta Wing - W2

GENERAL DESCRIPTION: Wing W1 with 79° leading edge glove.

DRAWING NUMBER:

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform	4642 FT^2	11.605 FT^2
Wetted		
Span (equivalent)	1115.1 IN	55.755 IN
Aspect Ratio	1.860	1.860
Rate of Taper		
Taper Ratio	.0908	.0908
Dihedral Angle, degrees	7°	7°
Incidence Angle, degrees	+1.5°	+1.5°
Aerodynamic Twist, degrees	0	0
Toe-In Angle	0	0
Cant Angle	0	0
Sweep Back Angles, degrees		
Leading Edge	35°/79°	35°/79°
Trailing Edge	-19.59°	-19.59°
0.25 Element Line		
Chords:		
Root (Wing Sta. 0.0)	1620.5 IN	81.025 IN
Tip, (equivalent)	147.2 IN	7.36 IN
MAC	879.5 IN	43.975 IN
Fus. Sta. of .25 MAC	728.2 IN	36.41 IN
Fus. Sta. of Apex	-169.6 IN	-8.48 IN
B.L. of .25 MAC	199 IN	9.95 IN
Fus. Sta. of Break	854.1	42.705 IN
B.L. of Break	199 IN	9.95 IN
EXPOSED DATA		
Area	2839.986 FT^2	7.10 FT^2
Span, (equivalent)	911.1 IN	45.555 IN
Aspect Ratio	2.03	2.03
Taper Ratio	.1427	.1427
Chords		
Root	1031.3 IN	51.565 IN
Tip	147.2 IN	7.36 IN
MAC	573.2 IN	28.66 IN
Fus. Sta. of .25 MAC	926.8 IN	46.34 IN
W.P. of .25 MAC		
B.L. of .25 MAC		

TABLE III. (Continued)

MODEL COMPONENT: Horizontal Tail - H_1

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform	600 ft^2	1.5 ft^2
Wetted		
Span (equivalent)	480 in.	24 in.
Aspect Ratio	2.667	2.667
Rate of Taper		
Taper Ratio	.2	.2
Dihedral Angle, degrees	0	0
Incidence Angle, degrees	-10, 0, 10	-10, 0, 10
Aerodynamic Twist, degrees	0	0
Toe-In Angle	0	0
Cant Angle	0	0
Sweep Back Angles, degrees		
Leading Edge	45	45
Trailing Edge	0	0
0.25 Element Line	36.9	36.9
Chords:		
Root (Wing Sta. 0.0)	300 in.	15.0 in.
Tip, (equivalent)	60 in.	3.0 in.
MAC	206.7 in.	10.335 in.
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	Flat Plate	Flat Plate
Tip	Flat Plate	Flat Plate
EXPOSED DATA		
Area	247.3 ft^2	.618 ft^2
Span, (equivalent)	276. in.	13.8 in.
Aspect Ratio	2.140	2.140
Taper Ratio	.303	.303
Chords		
Root	198.0 in.	9.9 in.
Tip	60.0 in.	3.0 in.
MAC	141.3 in.	7.065 in.
ADDITIONAL DATA		
Hingeline	1274.3 in.	63.72 in.
Trailing Edge	1344.9	67.25 in.
Theoretical Apex	1044.9 in.	52.25 in.

TABLE III. (Continued)

MODEL COMPONENT: Horizontal Tail - H_2

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area		
Planform	900 ft^2	2.25 ft^2
Wetted		
Span (equivalent)	587.9 in.	29.395 in.
Aspect Ratio	2.667	2.667
Rate of Taper		
Taper Ratio	.2	.2
Dihedral Angle, degrees	0	0
Incidence Angle, degrees	-10, 0, 10	-10, 0, 10
Aerodynamic Twist, degrees	0	0
Toe-In Angle	0	0
Cant Angle	0	0
Sweep Back Angles, degrees		
Leading Edge	45	45
Trailing Edge	0	0
0.25 Element Line	36.9	26.9
Chords:		
Root (Wing Sta. 0.0)	367.4 in.	18.37 in.
Tip, (equivalent)	73.5 in.	3.675 in.
MAC	253.1 in.	12.655 in.
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
B.L. of .25 MAC		
Airfoil Section		
Root	Flat Plate	Flat Plate
Tip	Flat Plate	Flat Plate
EXPOSED DATA		
Area	451.8 ft^2	1.130 ft^2
Span, (equivalent)	383.9 in.	19.195 in.
Aspect Ratio	2.266	2.266
Taper Ratio	.277	.277
Chords		
Root	265.4 in.	13.27 in.
Tip	73.5 in.	3.675 in.
MAC	187.6 in.	9.38 in.
ADDITIONAL DATA		
Hingeline	1274.3 in.	63.72 in.
Trailing Edge	1368.0 in.	68.40 in.
Theoretical Apex	1000.6 in.	50.03 in.

TABLE III. (Continued)
MODEL DIMENSIONAL DATA

MODEL COMPONENT : Gothic Canard

GENERAL DESCRIPTION : GC1 is at position 1.
GC2 is at position 2.
GC3 is at position 3.

DRAWING NUMBER :

DIMENSIONS :

		FULL SCALE	MODEL SCALE
Exposed Area (per panel)	GC1	163.7 ft^2	.40925 ft^2
	GC2	144.6 ft^2	.3615 ft^2
	GC3	129.2 ft^2	.3230 ft^2
* Exposed semi span (per panel)	GC1	84.44 in.	4.222 in.
	GC2	77.0 in.	3.850 in.
	GC3	72.2 in.	3.610 in.
**Exposed root chord	GC1	245.4 in.	12.270 in.
	GC2	240.0 in.	12.0 in.
	GC3	236.0 in.	11.80 in.
Trailing edge fus. sta.	GC1	404.1 in.	20.205 in.
	GC2	454.1 in.	22.705 in.
	GC3	504.1 in.	25.205 in.

* Distance from intersection of canard trailing edge with fuselage to canard tip when projected YZ body plane.

**Distance between the intersection of the leading and trailing edges with fuselage when projected to the body XZ plane.

TABLE III. (Concluded)
MODEL DIMENSIONAL DATA

MODEL COMPONENT : Switch Blade Canards - SC1, SC2, SC3

GENERAL DESCRIPTION : Switch blade canards utilized, only, with configurations employing W2.. Leading edge of switch blades and leading edge of glove intersect fuselage at same station; fuselage station 355.1

DRAWING NUMBER :

DIMENSIONS :		FULL SCALE	MODEL SCALE
Exposed Area (per panel)	SC1	84.3 ft^2	.21075 ft^2
	SC2	168.5 ft^2	.42125 ft^2
	SC3	218.1 ft^2	.54525 ft^2
Leading Edge Sweepback	SC1	62°	62°
	SC2	45°	45°
	SC3	35°	35°
Length of Leading Edge (measured along leading edge)	SC1	286 in.	14.3 in.
	SC2	286 in.	14.3 in.
	SC3	286 in.	14.3 in.

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrows
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

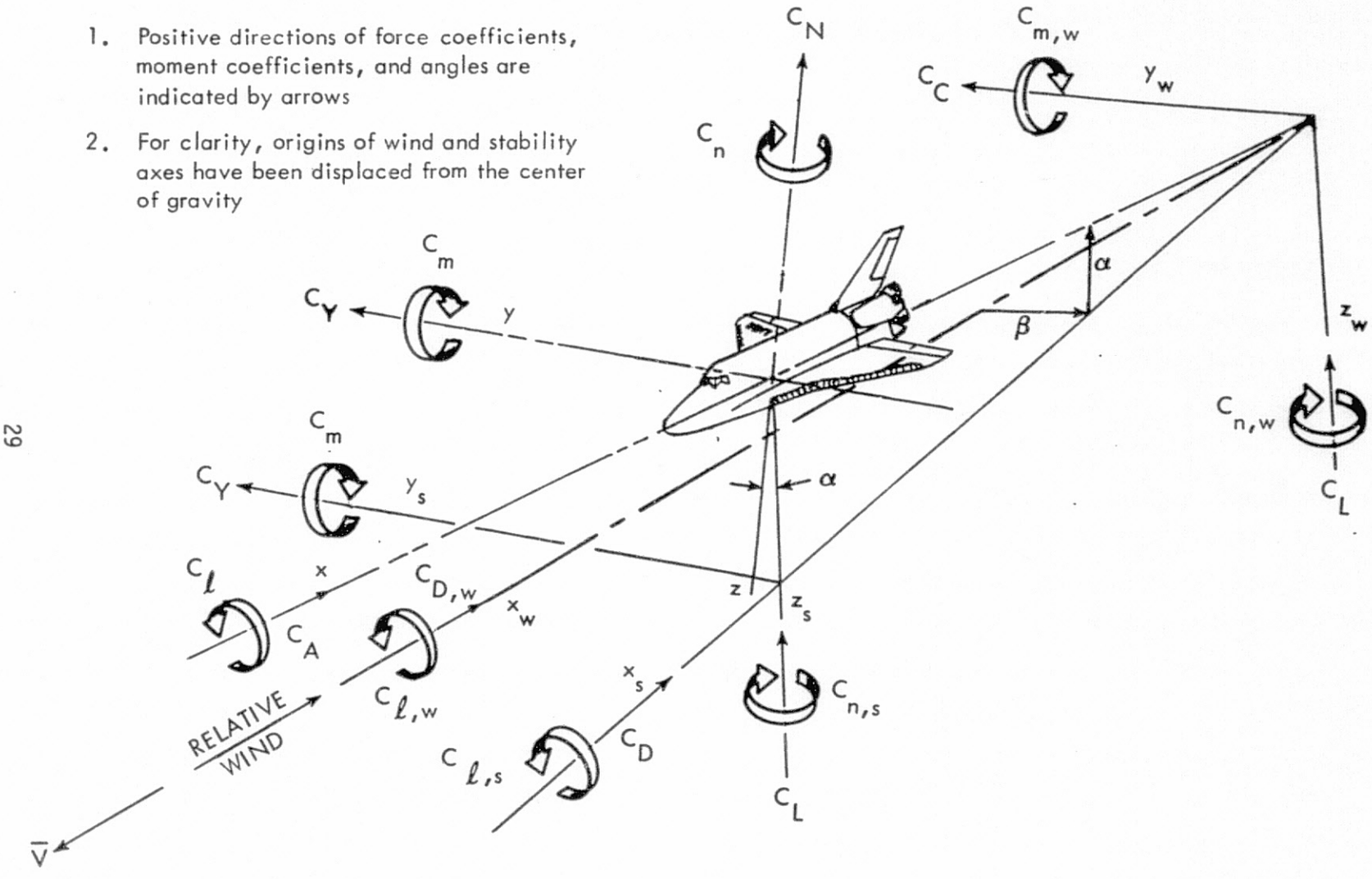


Figure 1. Axis Systems

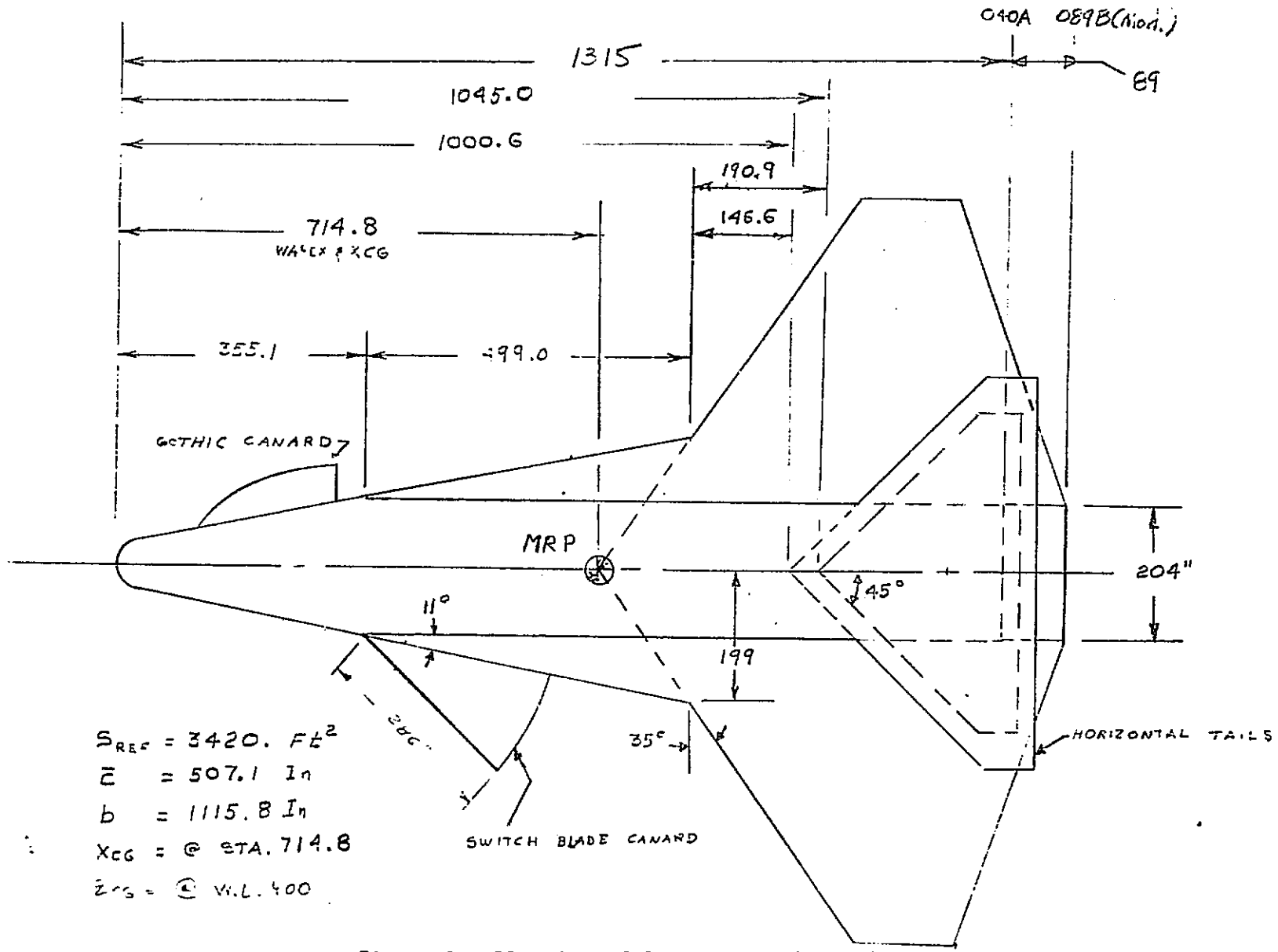
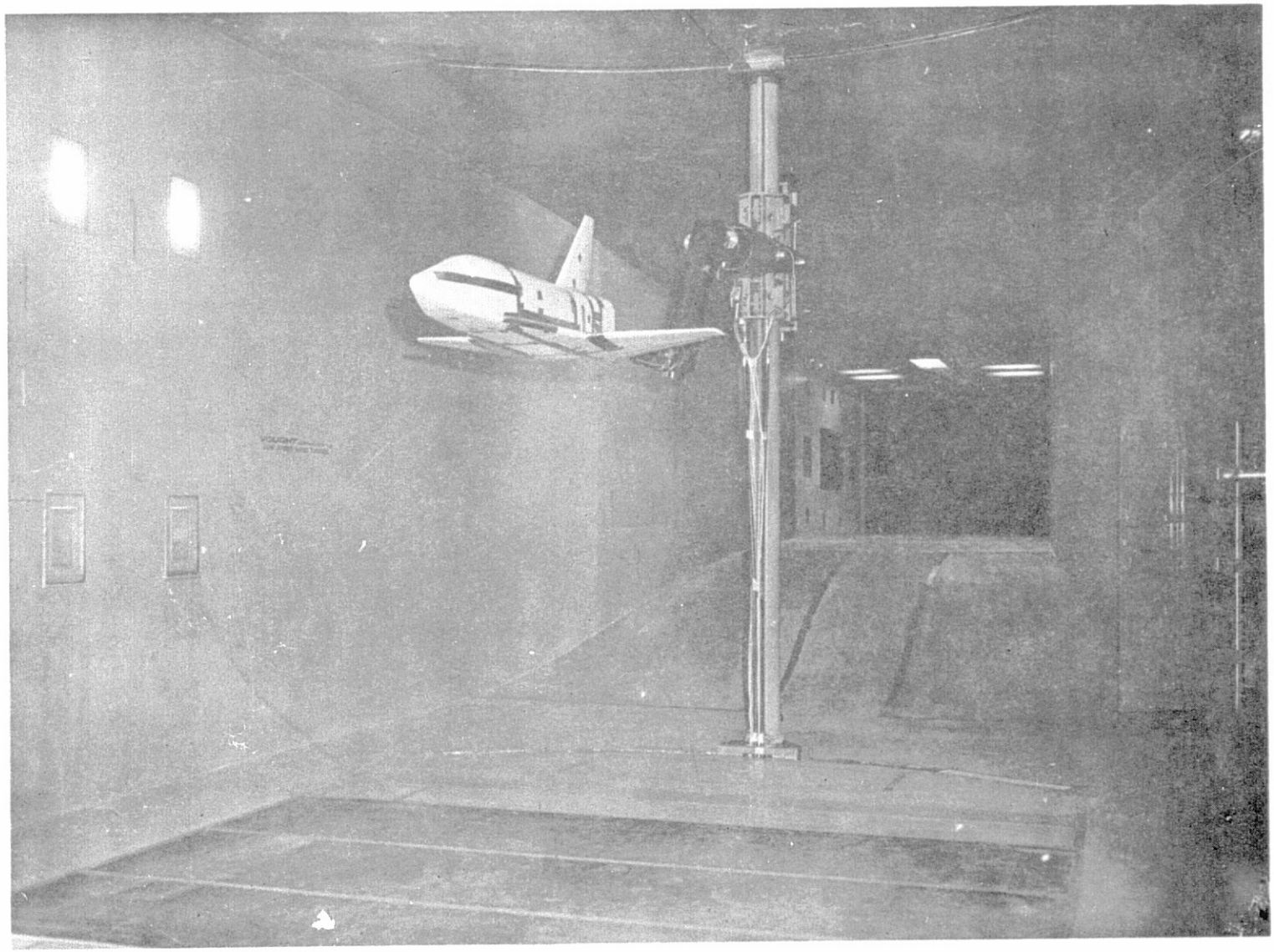
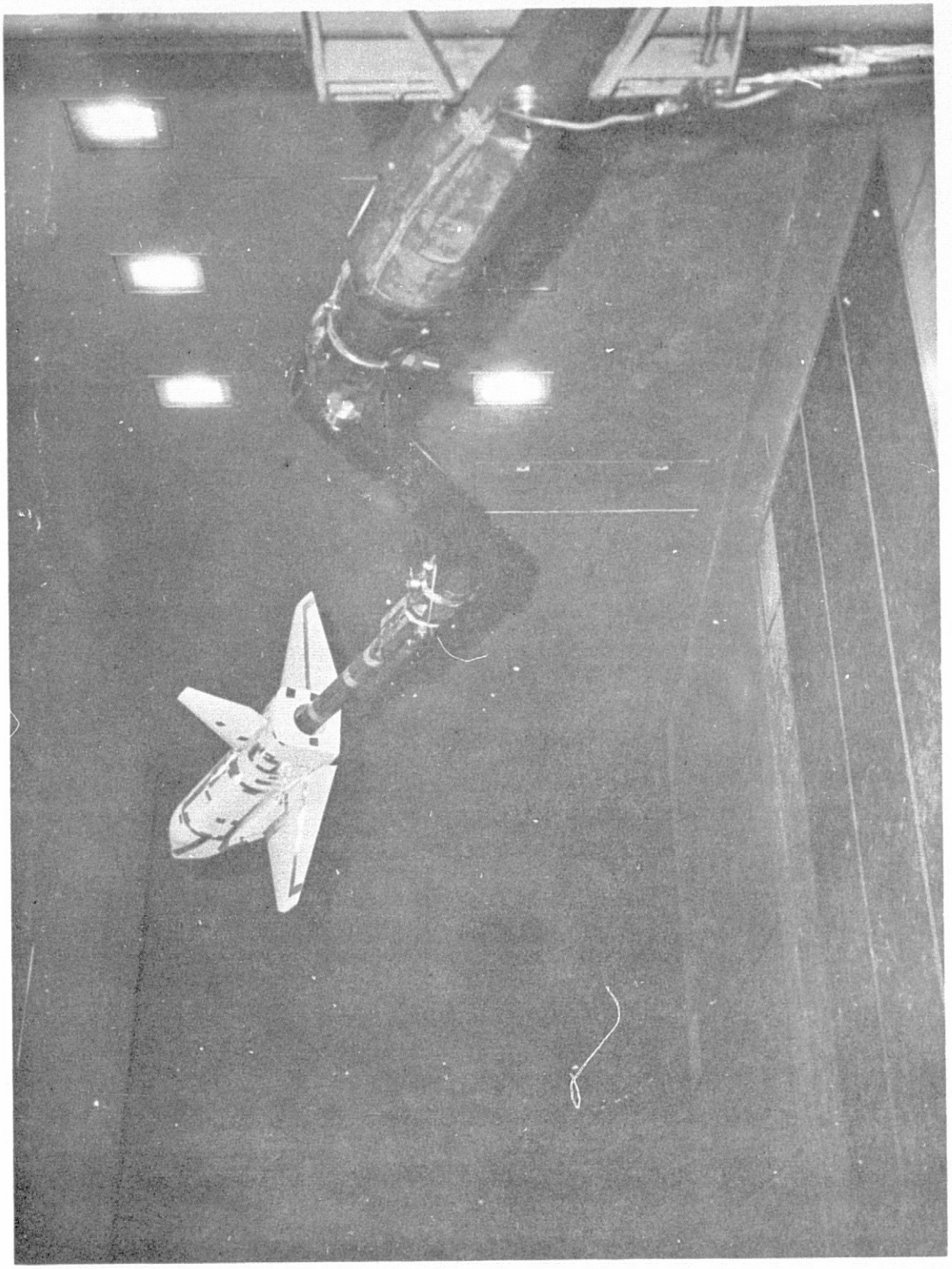


Figure 2. Planview of Orbiter Configuration



a. Forward View of Model Installation

Figure 3. Model photographs

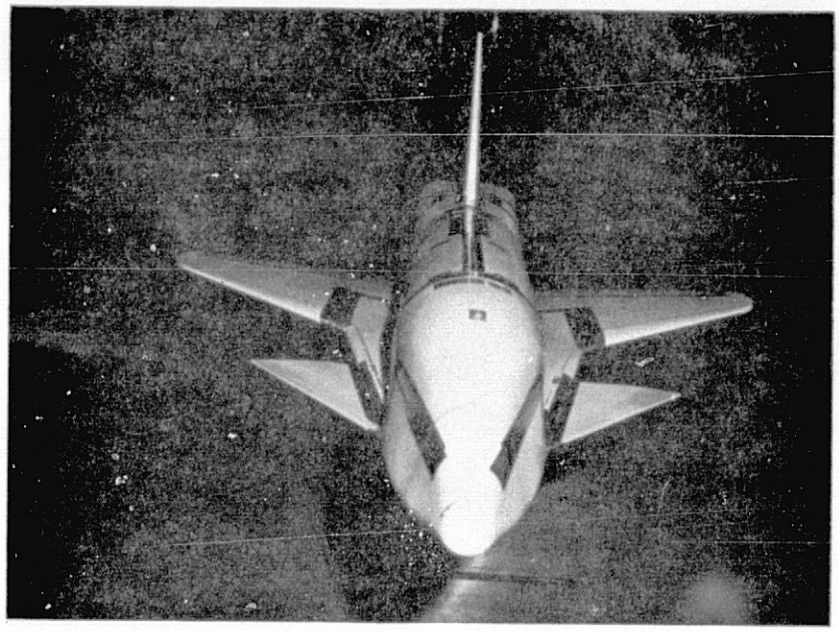


b. Aft View of Model Installation

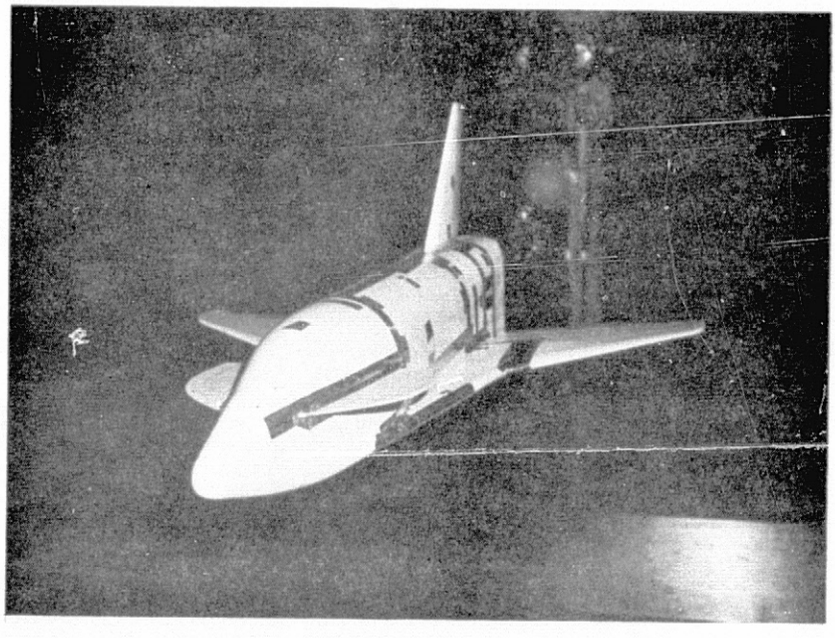
Figure 3. Continued

c) Profile View of 089B Orbiter

Figure 3. Continued

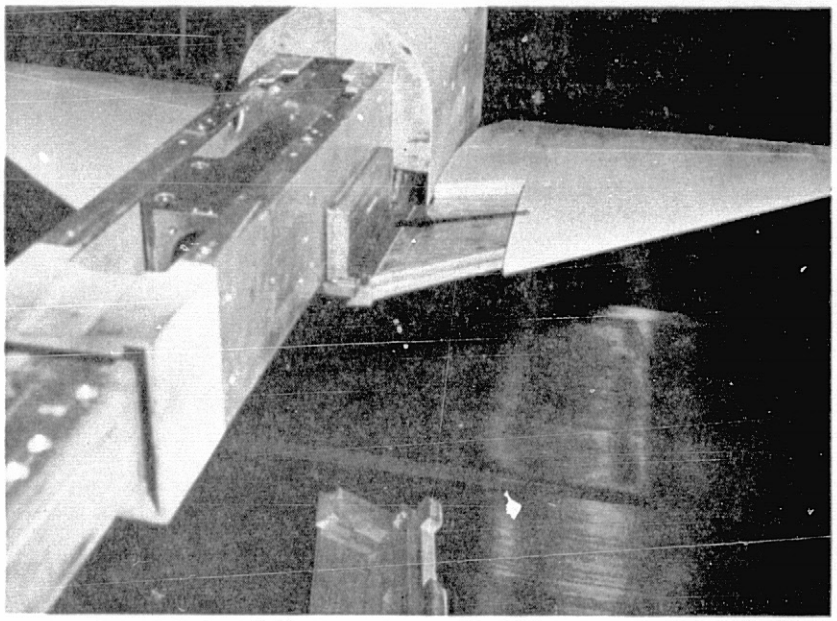


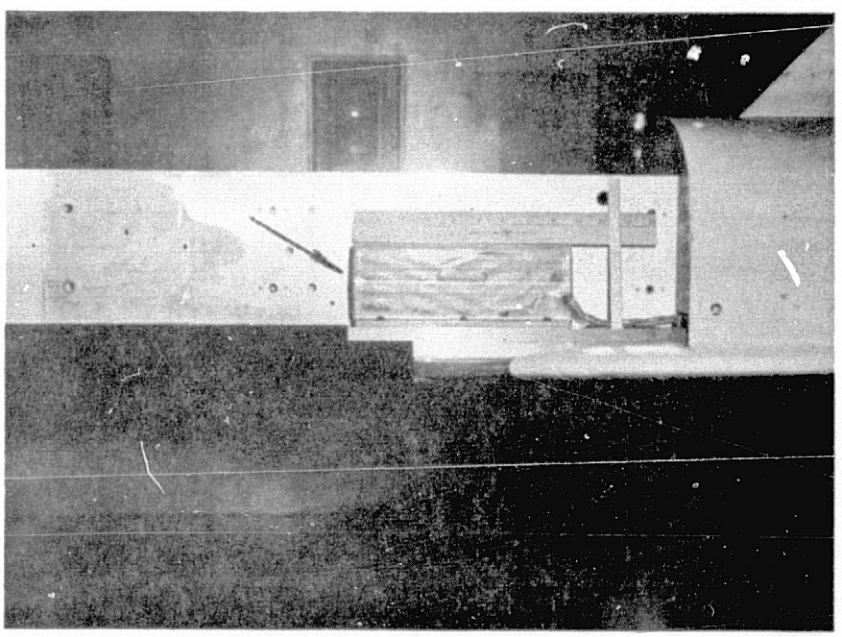
d. Basic 089B With Switch Blade Canard



e. Basic 089B With Gothic Canard

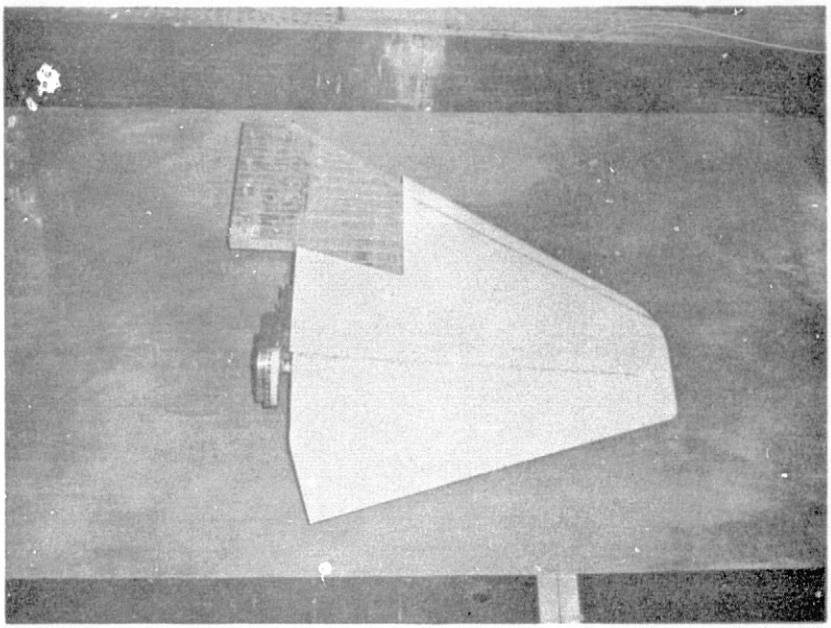
Figure 3. Continued



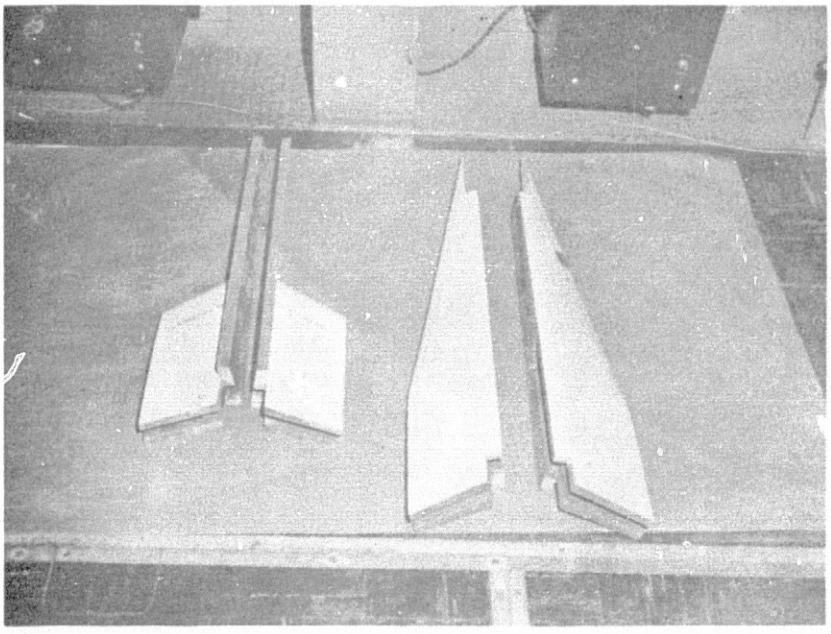


f. Electrolytic Bubble Levels

Figure 3. Continued

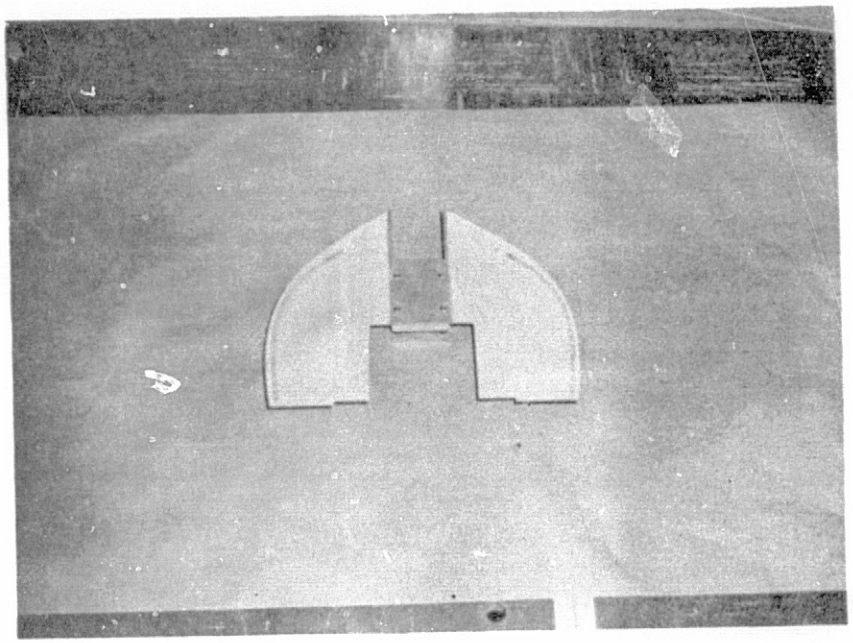


g. Basic 089B Wing

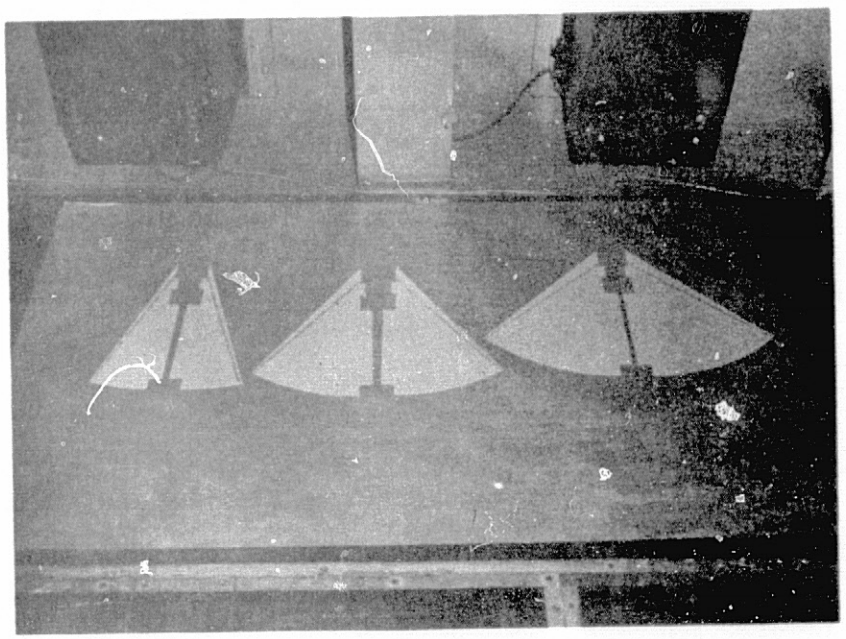


h. Fairings for W_1 and W_2

Figure 3. Continued

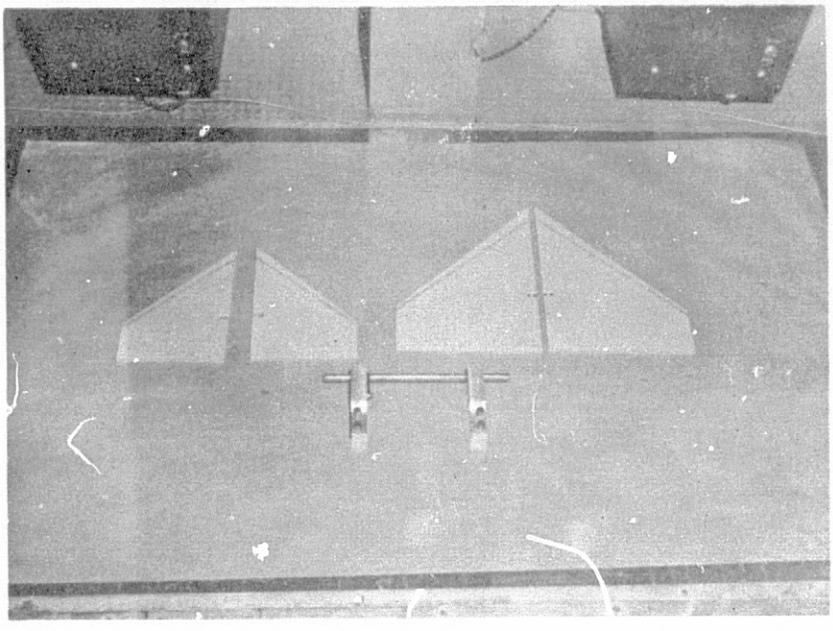


i. Gothic Canard

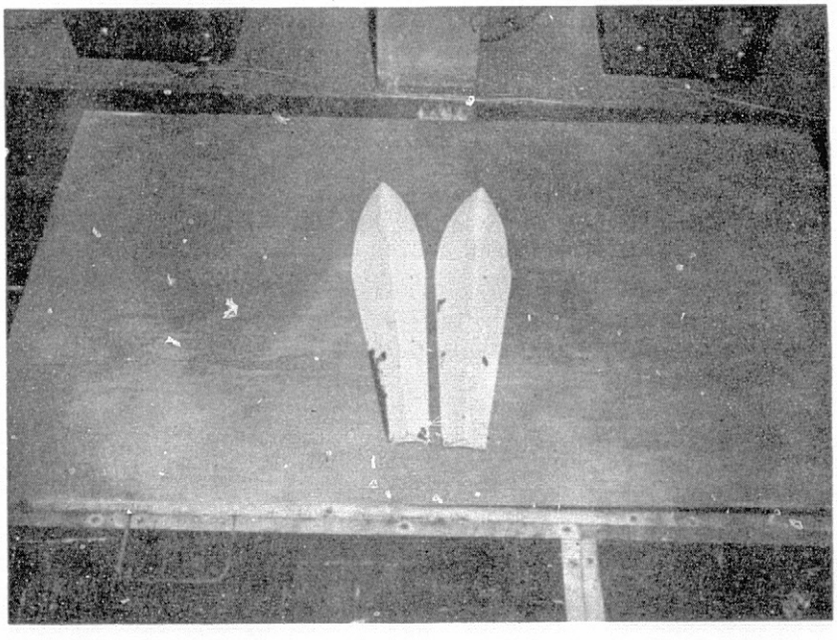


j. Switch-blade Canards

Figure 3. Continued

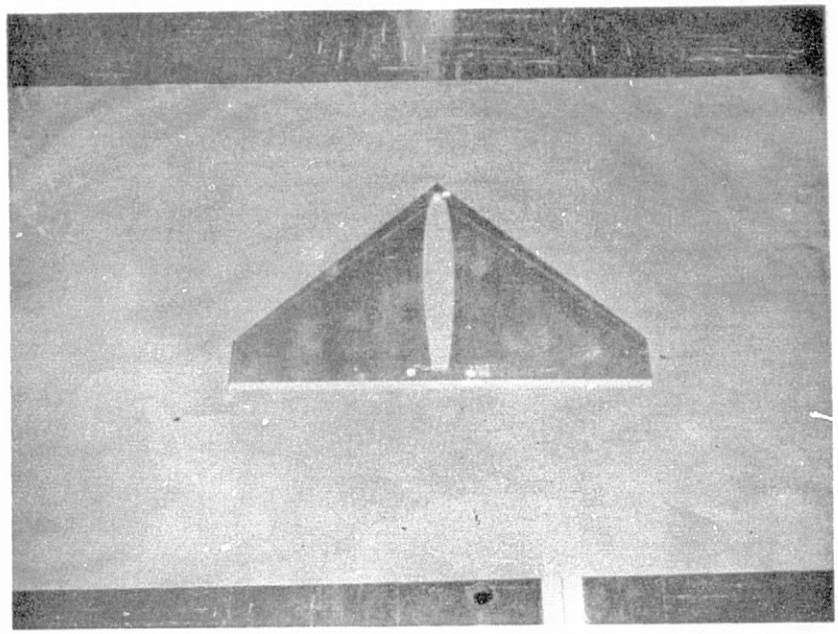


k. Axle-mounted Horizontal Tails (H1 and H2)

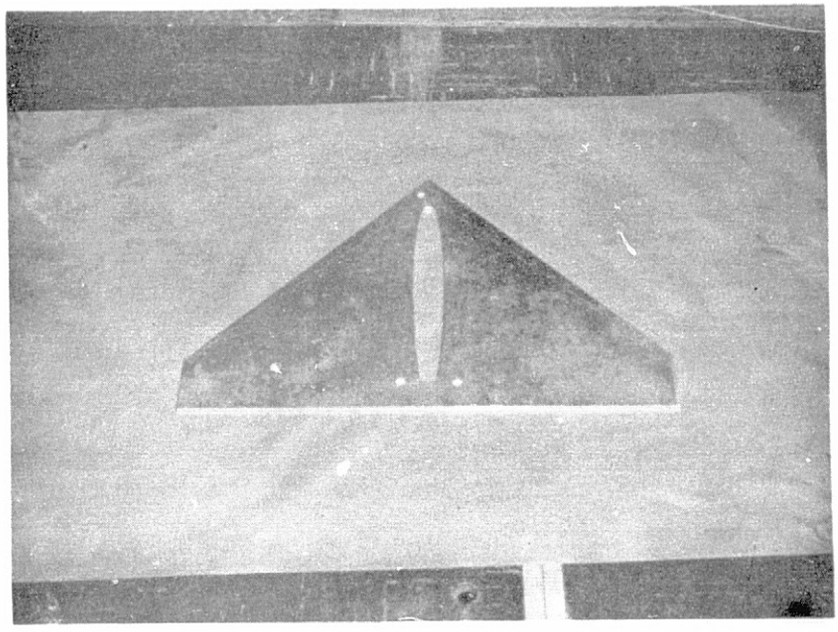


l. Horizontal Tail Root Fairings

Figure 3. Continued



m. Small One-piece Horizontal Tail H1



n. Large One-piece Horizontal Tail H2

Figure 3. Concluded

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DATA FIGURES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH040)	○	W2B1V1	.067
(RFH001)	□	W2B1V1	.067
(RFH069)	◇	W2B1V1	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

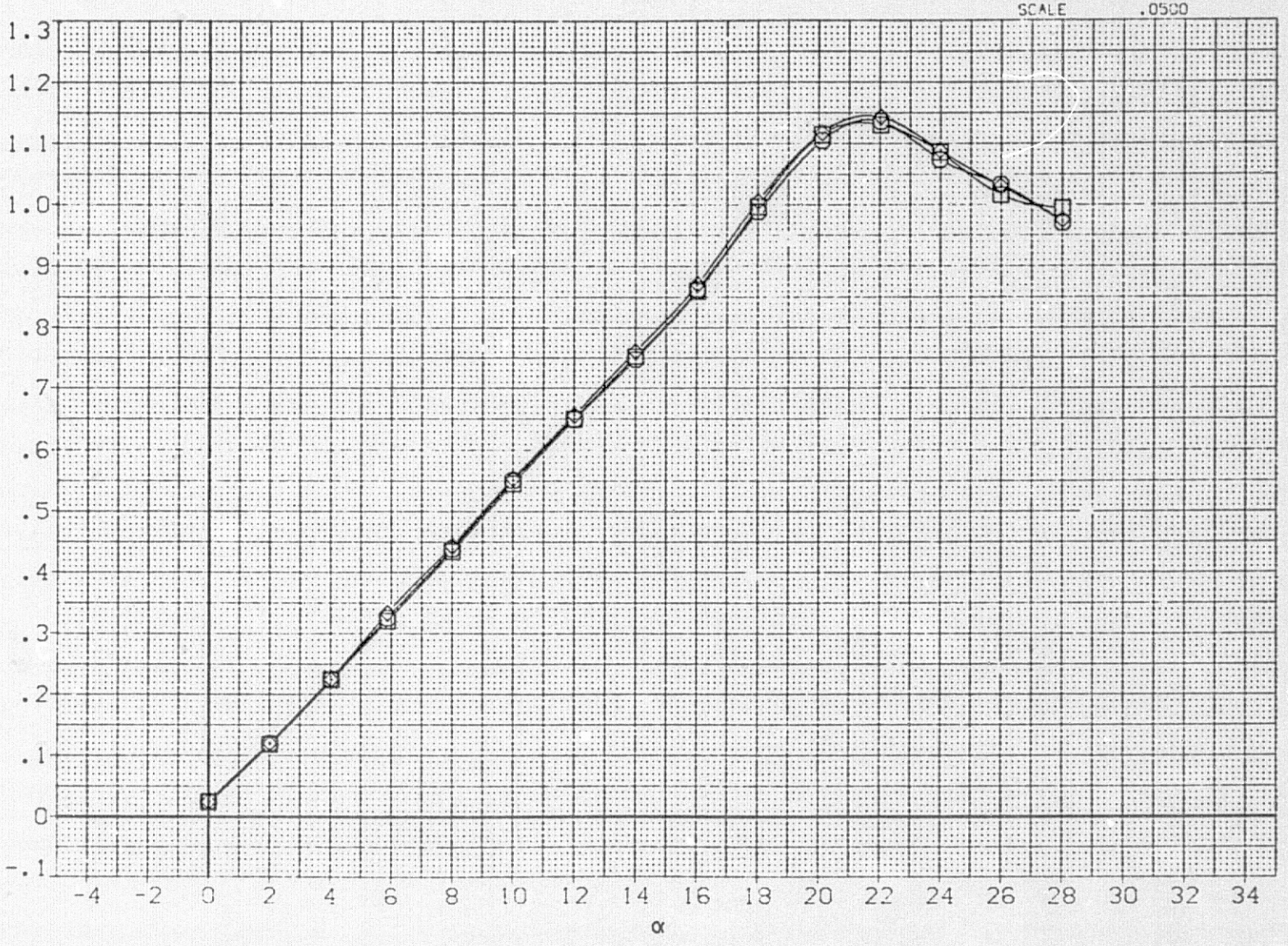

FIG 1 DATA REPEATIBILITY CHECK FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH043)	○	W2B1V1	.067
(RFH001)	□	W2B1V1	.067
(RFH069)	◇	W2B1V1	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.3000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

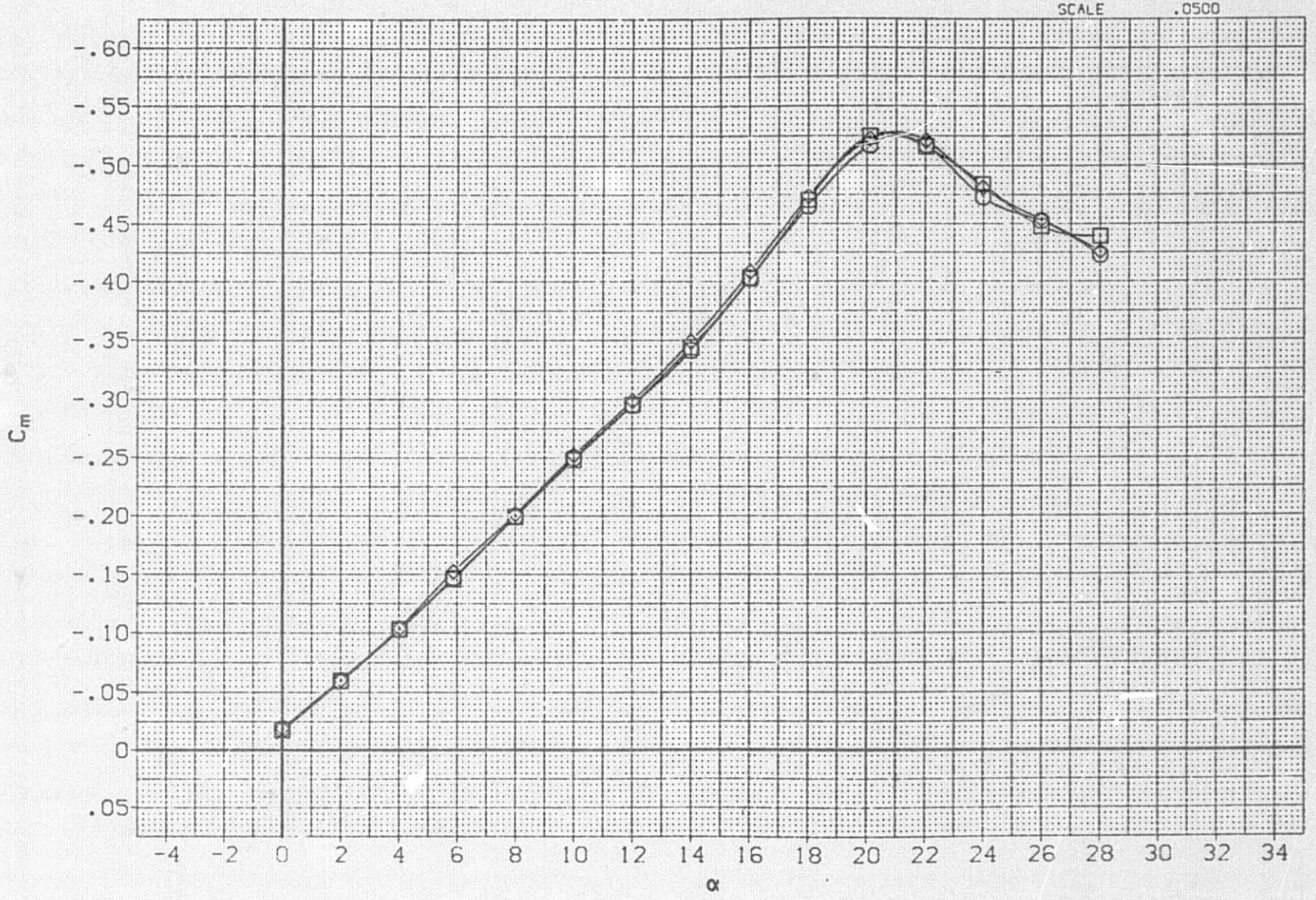

FIG 1 DATA REPEATIBILITY CHECK FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH040)	○	W2B1V1	.067
(RFH001)	□	W2B1V1	.067
(RFH069)	◇	W2B1V1	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

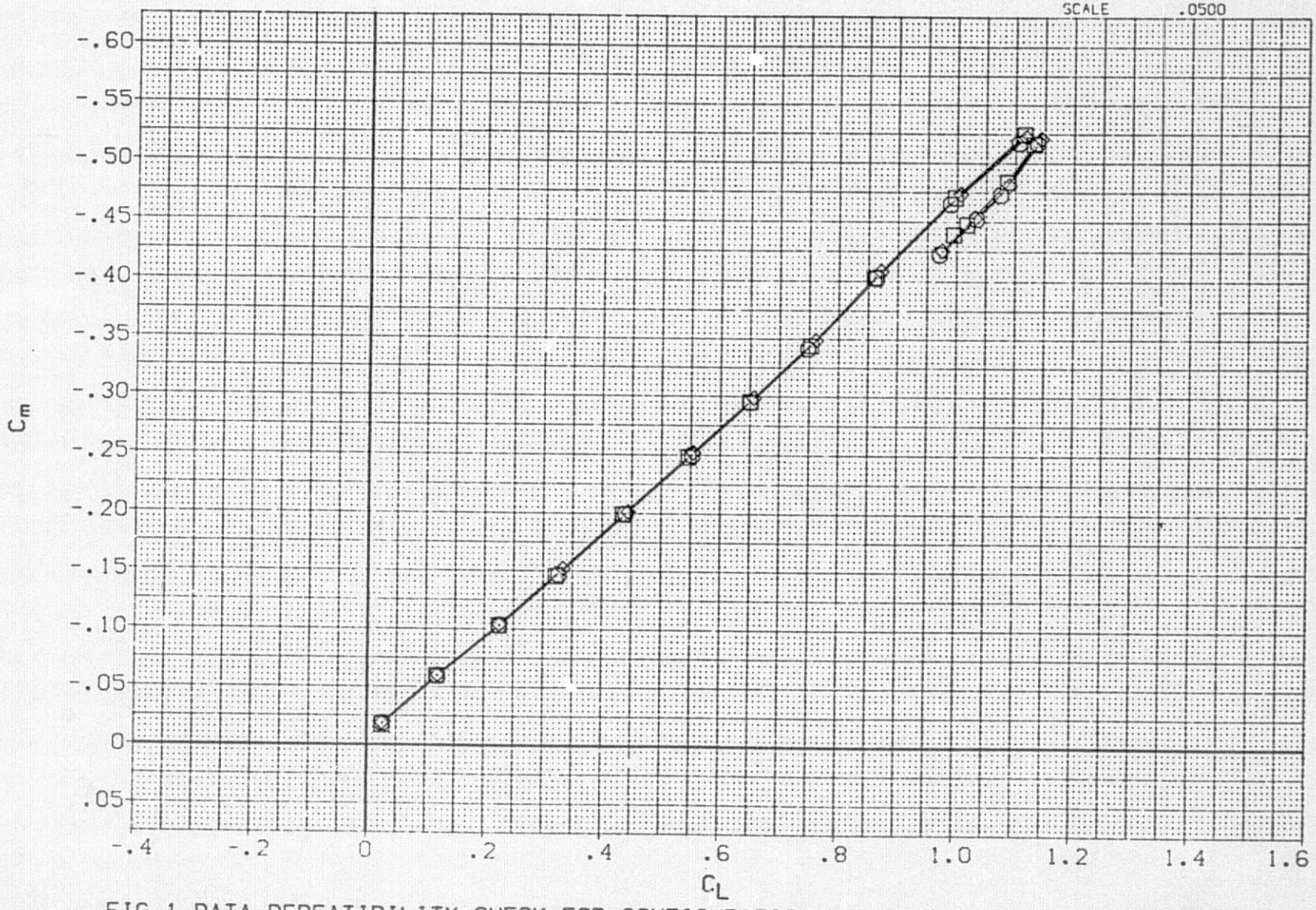

FIG 1 DATA REPEATIBILITY CHECK FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	□	W2B1V1
(RFH036)	○	W2B1V1GC2
(RFH035)	◇	W2B1V1GC3
(RFH034)	△	W2B1V1GC1

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

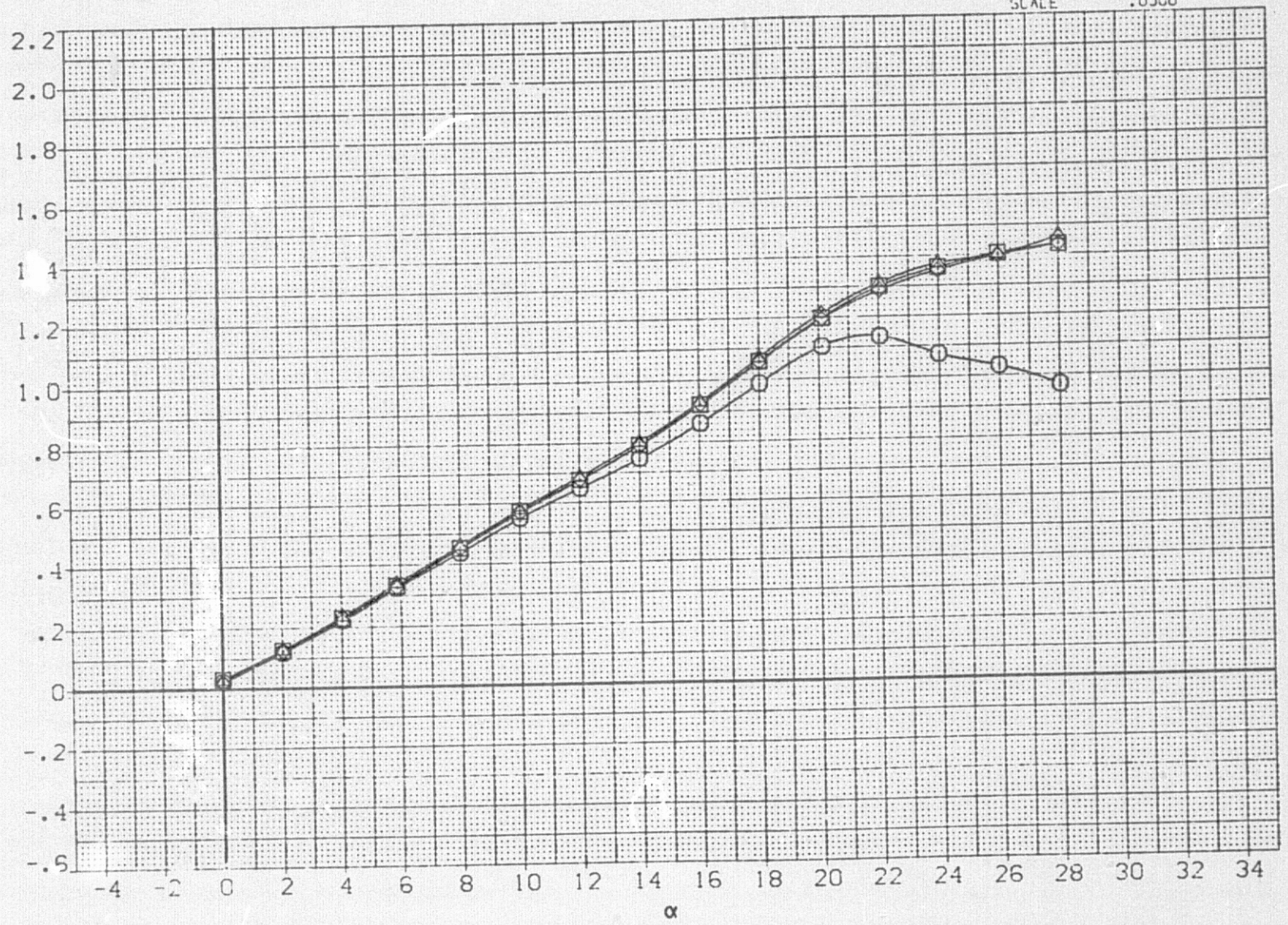

FIG 2 LONGITUDINAL EFFECTS OF GOTHIC CANARDS FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH036)	□	W2B1V1GC2
(RFH035)	◇	W2B1V1GC3
(RFH034)	△	W2B1V1GC1

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

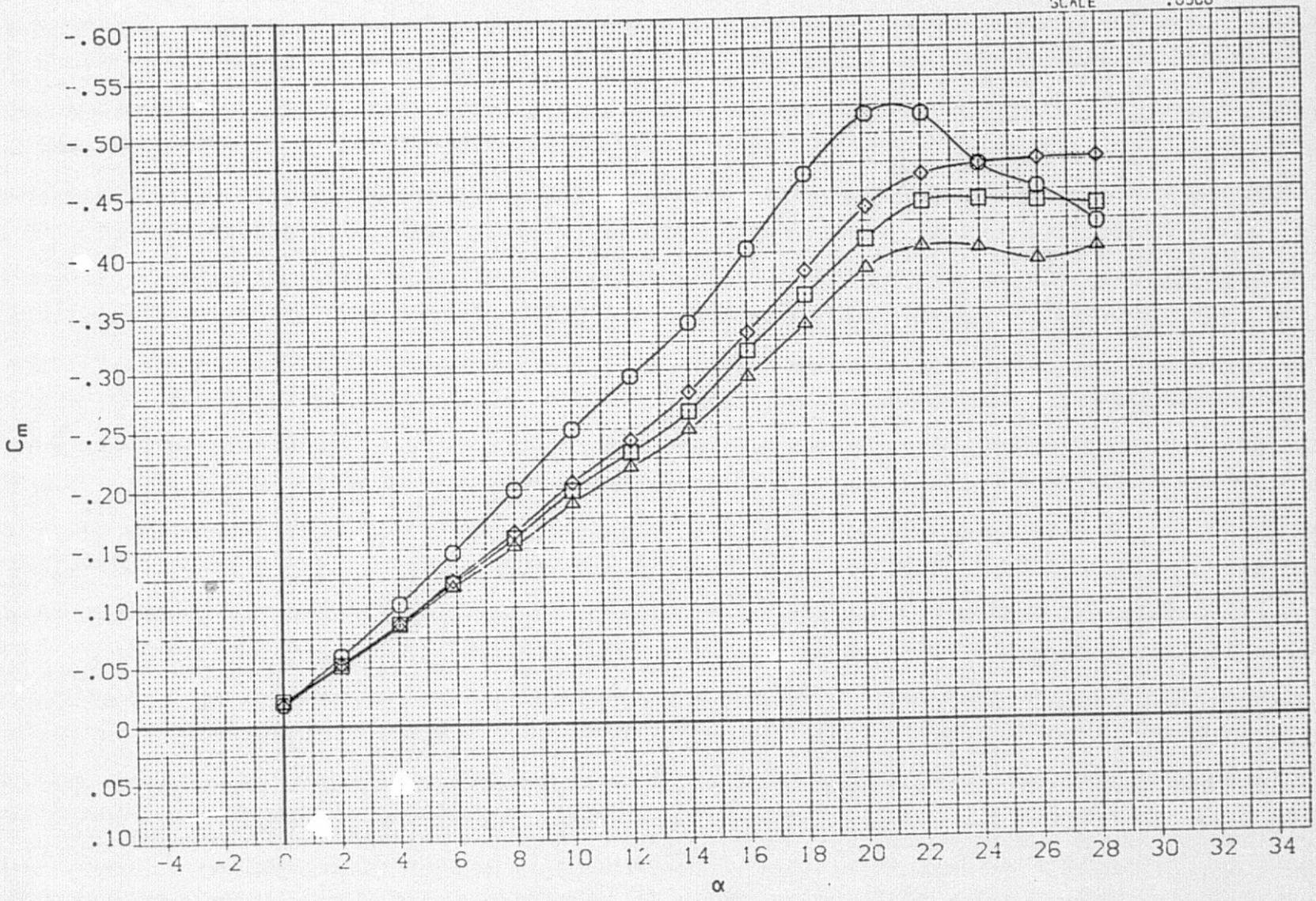

FIG 2 LONGITUDINAL EFFECTS OF GOTHIC CANARDS FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH036)	□	W2B1V1GC2	.000	.067	.000
(RFH035)	◇	W2B1V1GC3	.000	.067	.000
(RFH034)	△	W2B1V1GC1	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XØ
YMRP	.0000	IN.YØ
ZMRP	400.0000	IN.ZØ
SCALE	.0500	

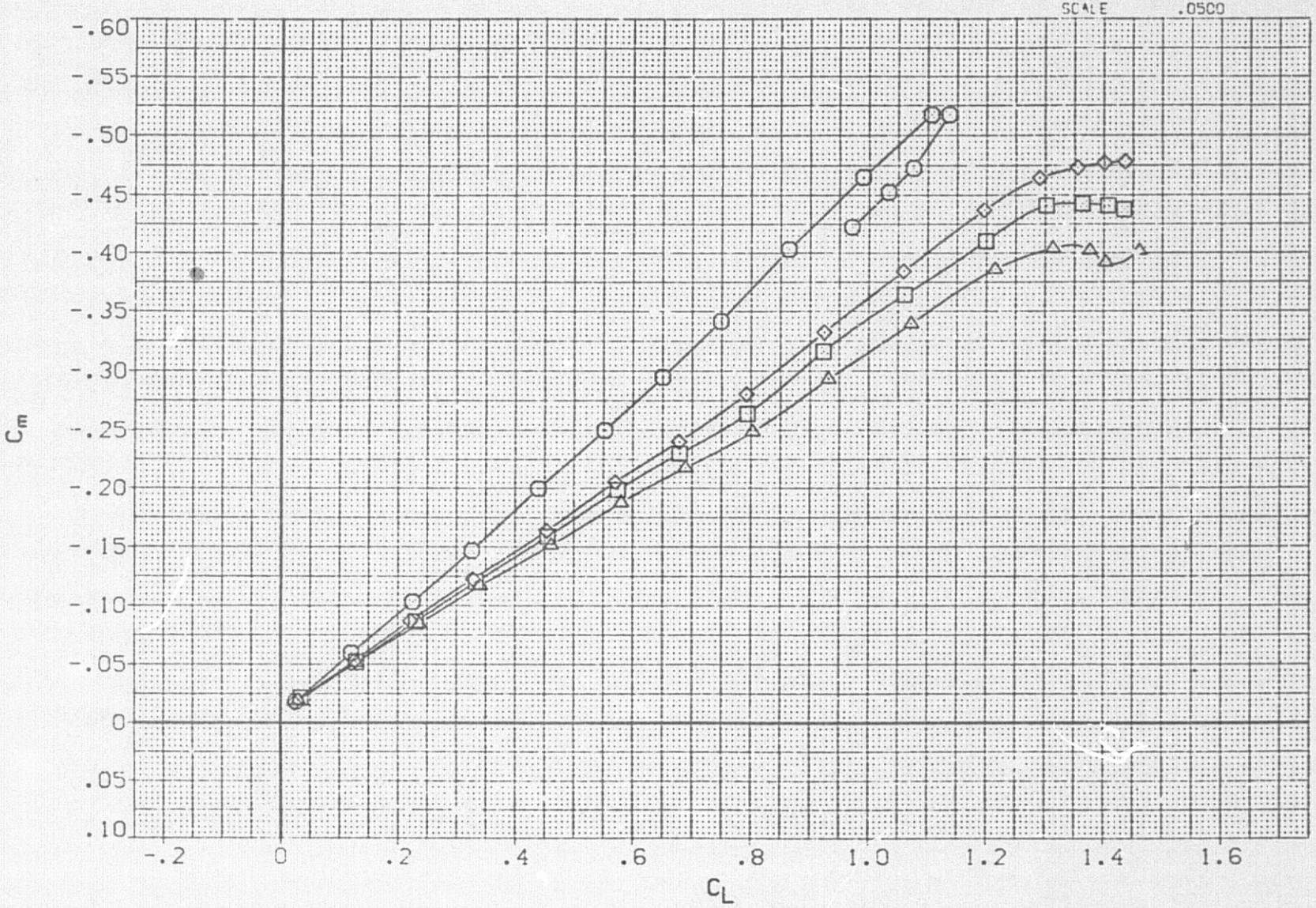

FIG 2 LONGITUDINAL EFFECTS OF GOTHIC CANARDS FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	□	W2B1V1
(RFH026)	◇	W2B1V1SC1
(RFH030)	⋈	W2B1V1SC2
(RFH033)	△	W2B1V1SC3

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0520	

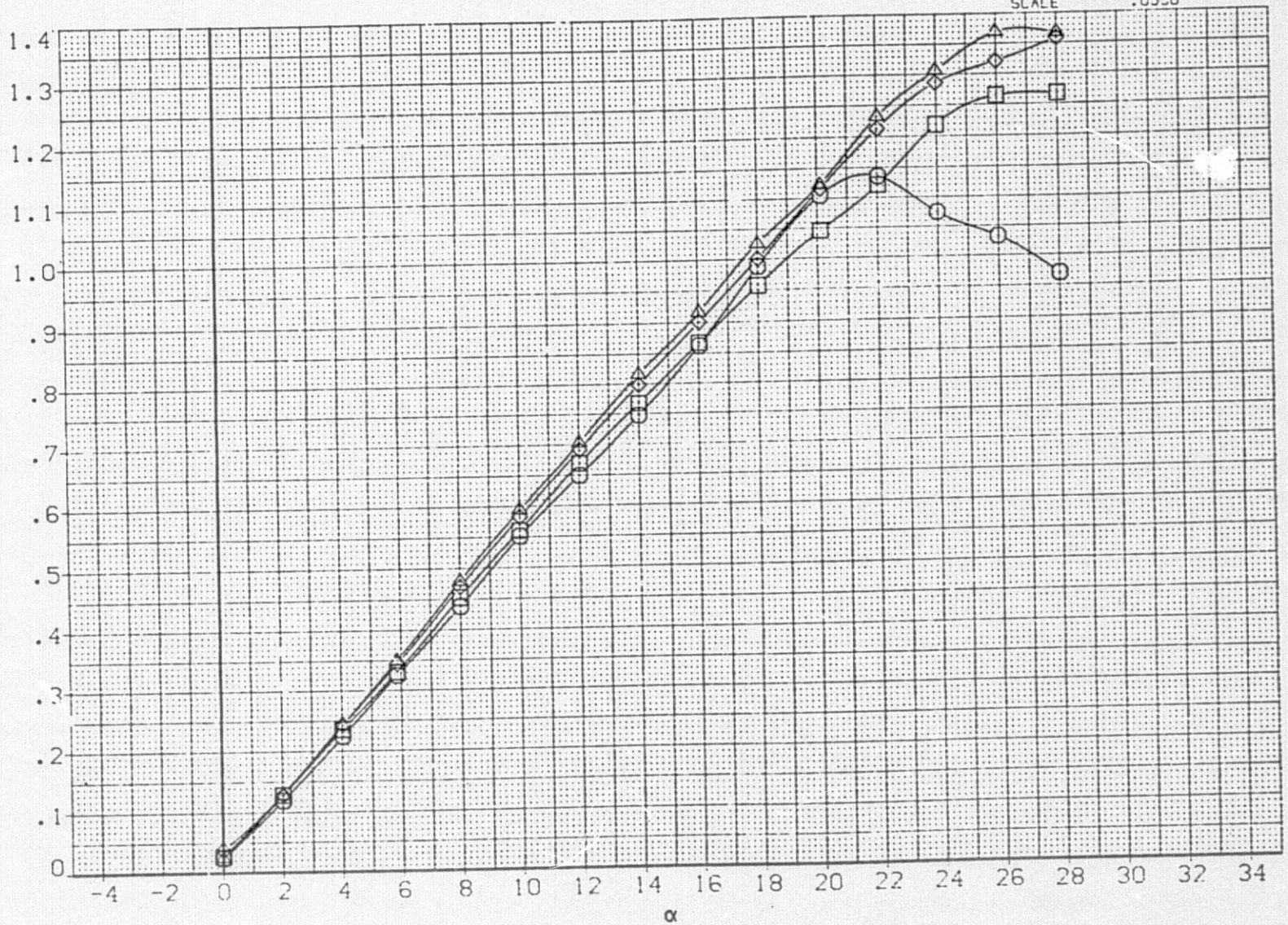

FIG 3 LONGITUDINAL EFFECTS OF SWITCH BLADE CANARDS FOR CONFIGURATION W2B1V1

(A)BETA = .0

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH026)	□	W2B1V1SC1	.000	.067	.000
(RFH030)	◇	W2B1V1SC2	.000	.067	.000
(RFH033)	△	W2B1V1SC3	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

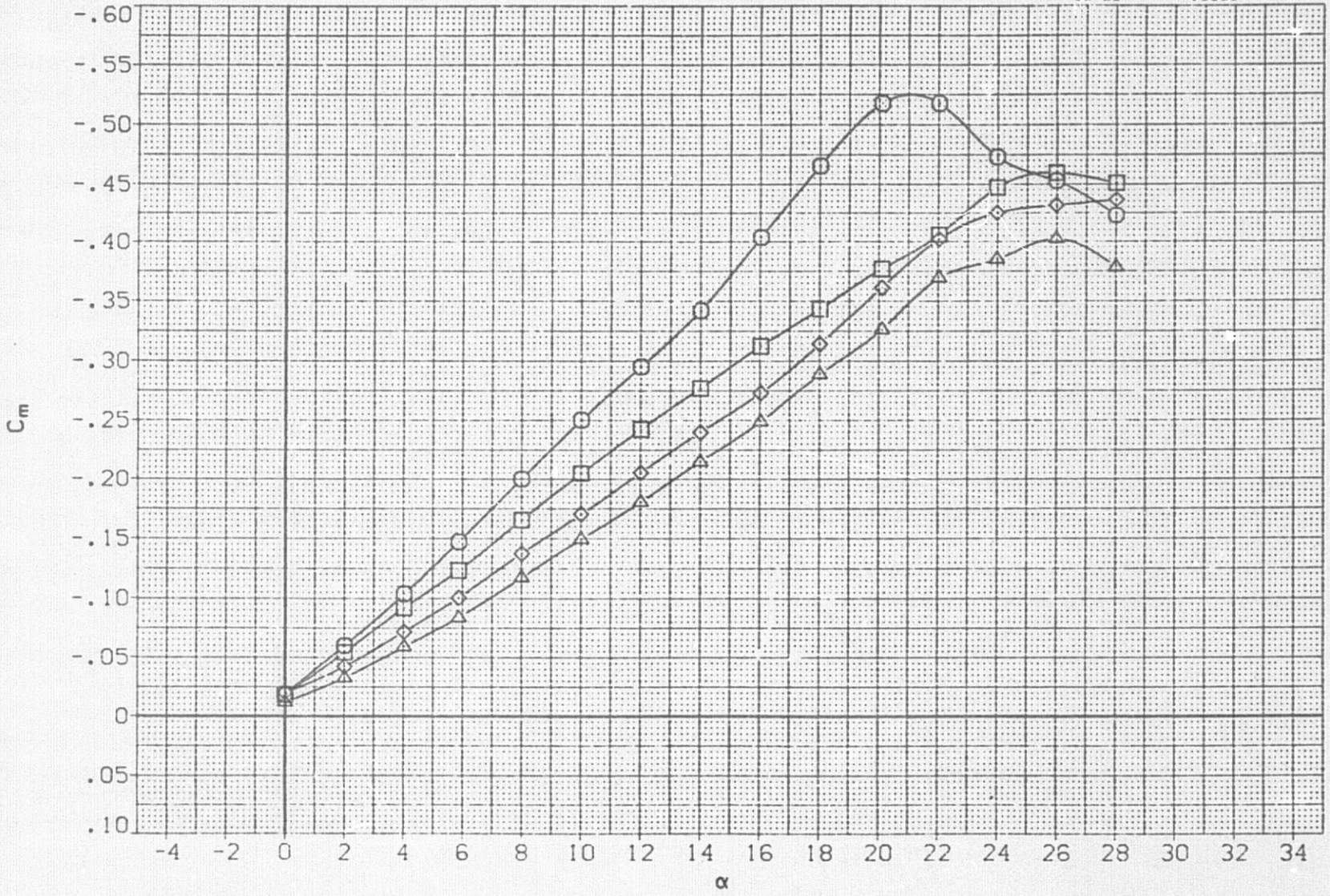

FIG 3 LONGITUDINAL EFFECTS OF SWITCH BLADE CANARDS FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH026)	□	W2B1V1SC1	.000	.067	.000
(RFH030)	◇	W2B1V1SC2	.000	.067	.000
(RFH033)	△	W2B1V1SC3	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

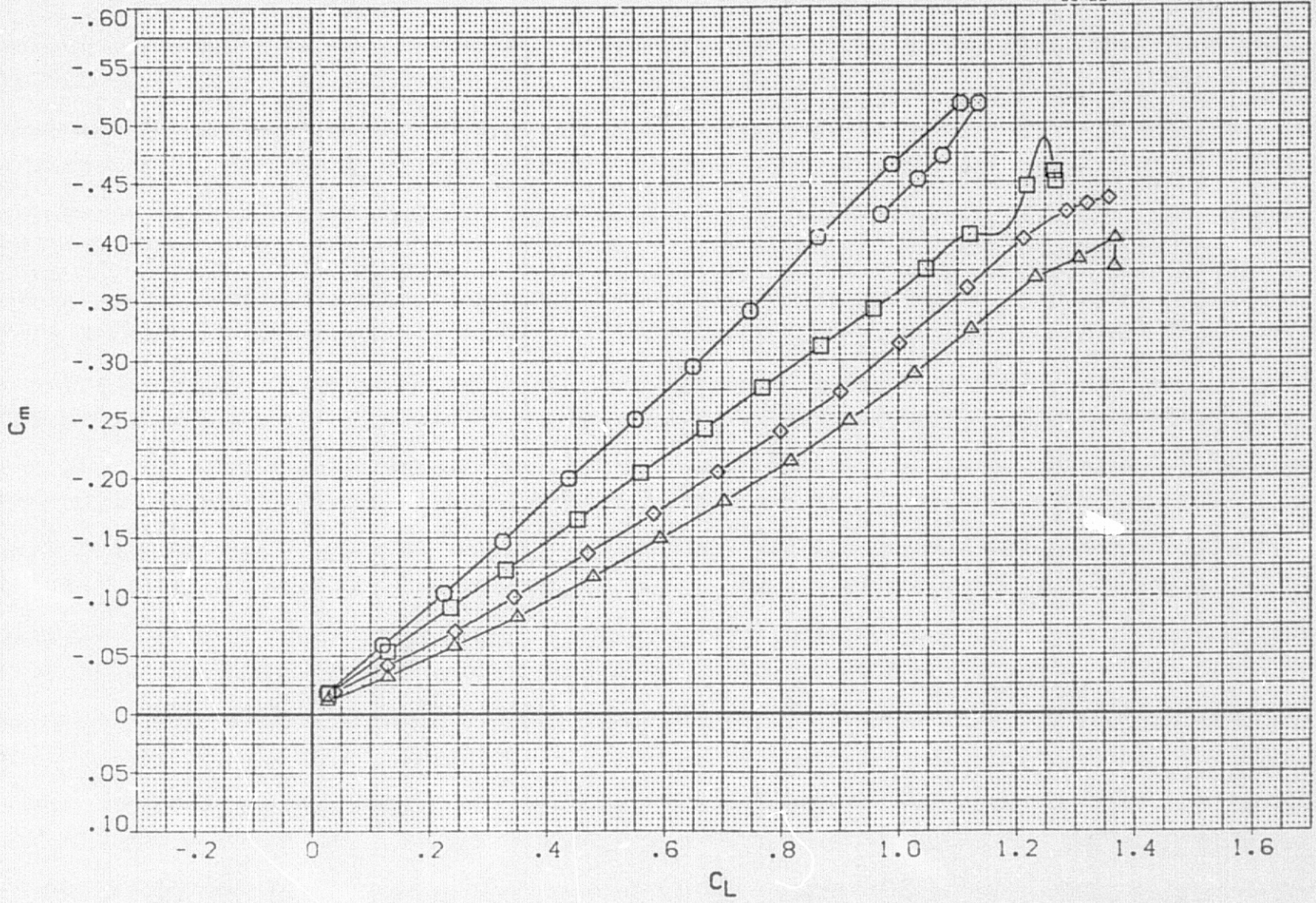

FIG 3 LONGITUDINAL EFFECTS OF SWITCH BLADE CANARDS FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH041)	○	W1B1V1
(RFH047)	□	W1B1V1GC2
(RFH049)	◇	W1B1V1GC1
(RFH050)	△	W1B1V1GC3

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

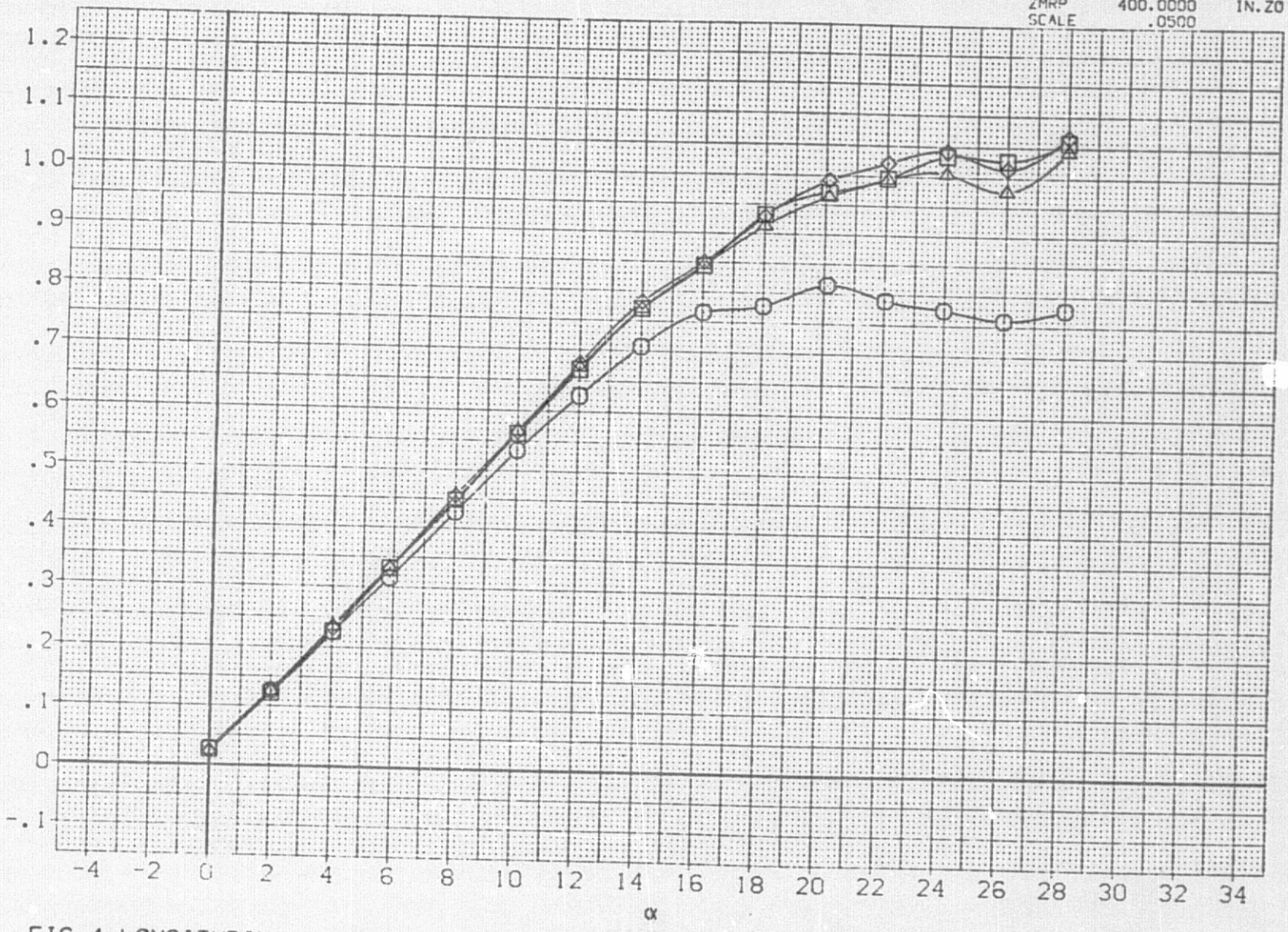

FIG 4 LONGITUDINAL EFFECTS OF GOTHIC CANARDS FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH041)	○	W1B1V1
(RFH047)	□	W1B1V1GC2
(RFH049)	◇	W1B1V1GC1
(RFH050)	△	W1B1V1GC3

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XØ
YMRP	.0000	IN. YØ
ZMRP	400.0000	IN. ZØ
SCALE	.0500	

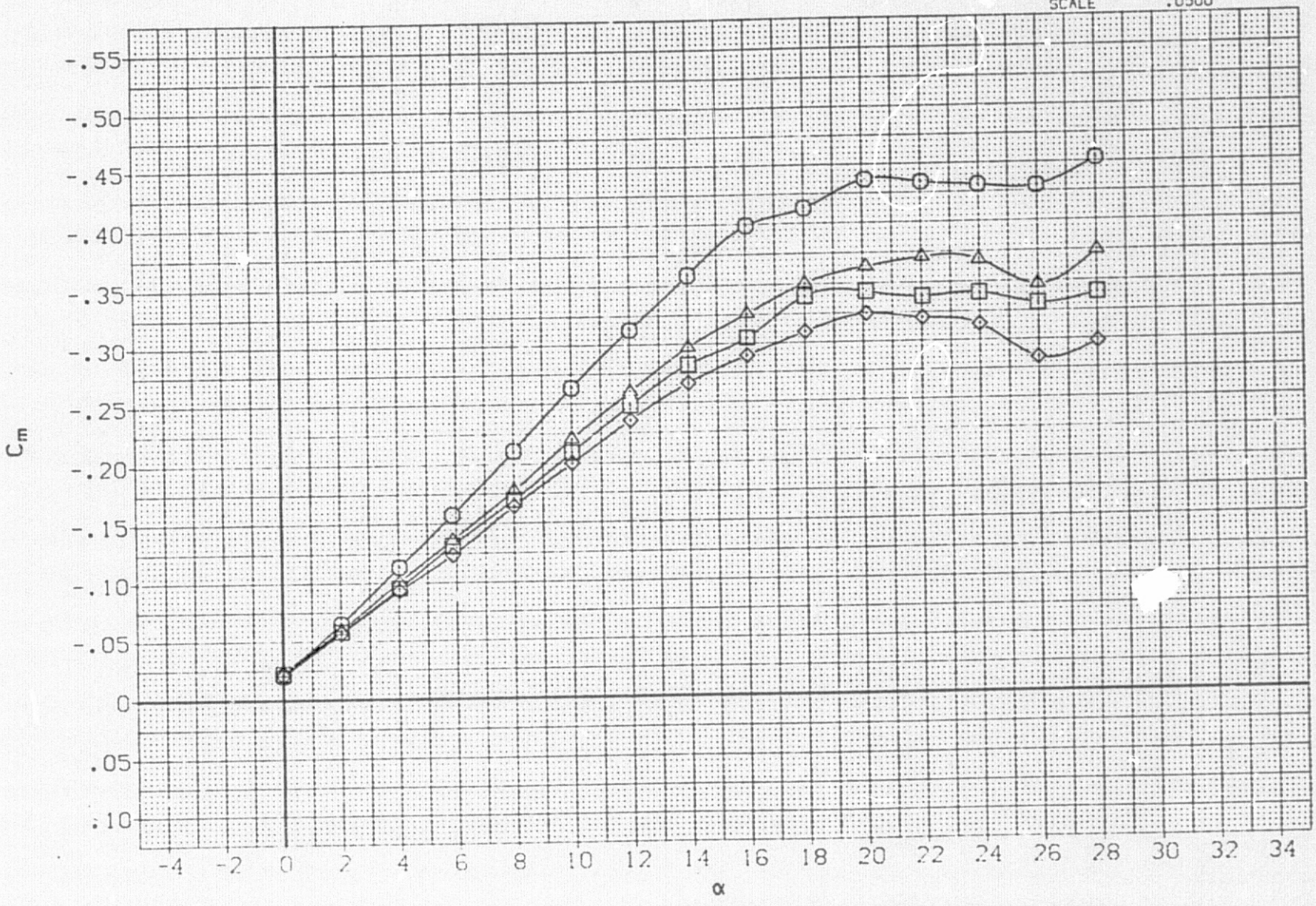

FIG 4 LONGITUDINAL EFFECTS OF GOTHIC CANARDS FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH04.)	○	W1B1V1	.000	.067	.000
(RFH047)	□	W1B1V1GC2	.000	.067	.000
(RFH049)	◇	W1B1V1GC1	.000	.067	.000
(RFH050)	△	W1B1V1GC3	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

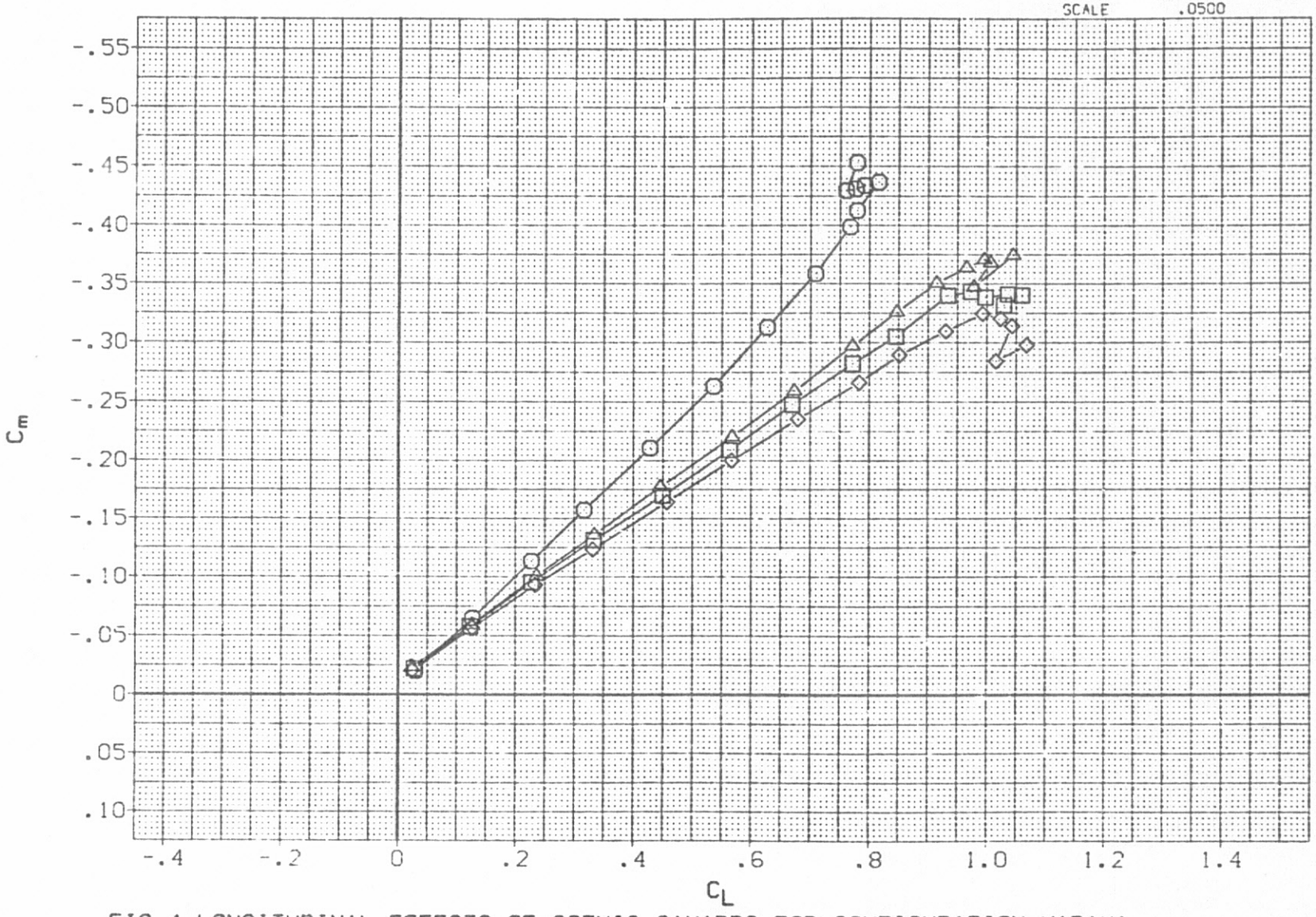

FIG 4 LONGITUDINAL EFFECTS OF GOTHIC CANARDS FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH054)	○	B1V1
(RFH051)	□	B1V1GC2

MACH	BETA
.067	.000
.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

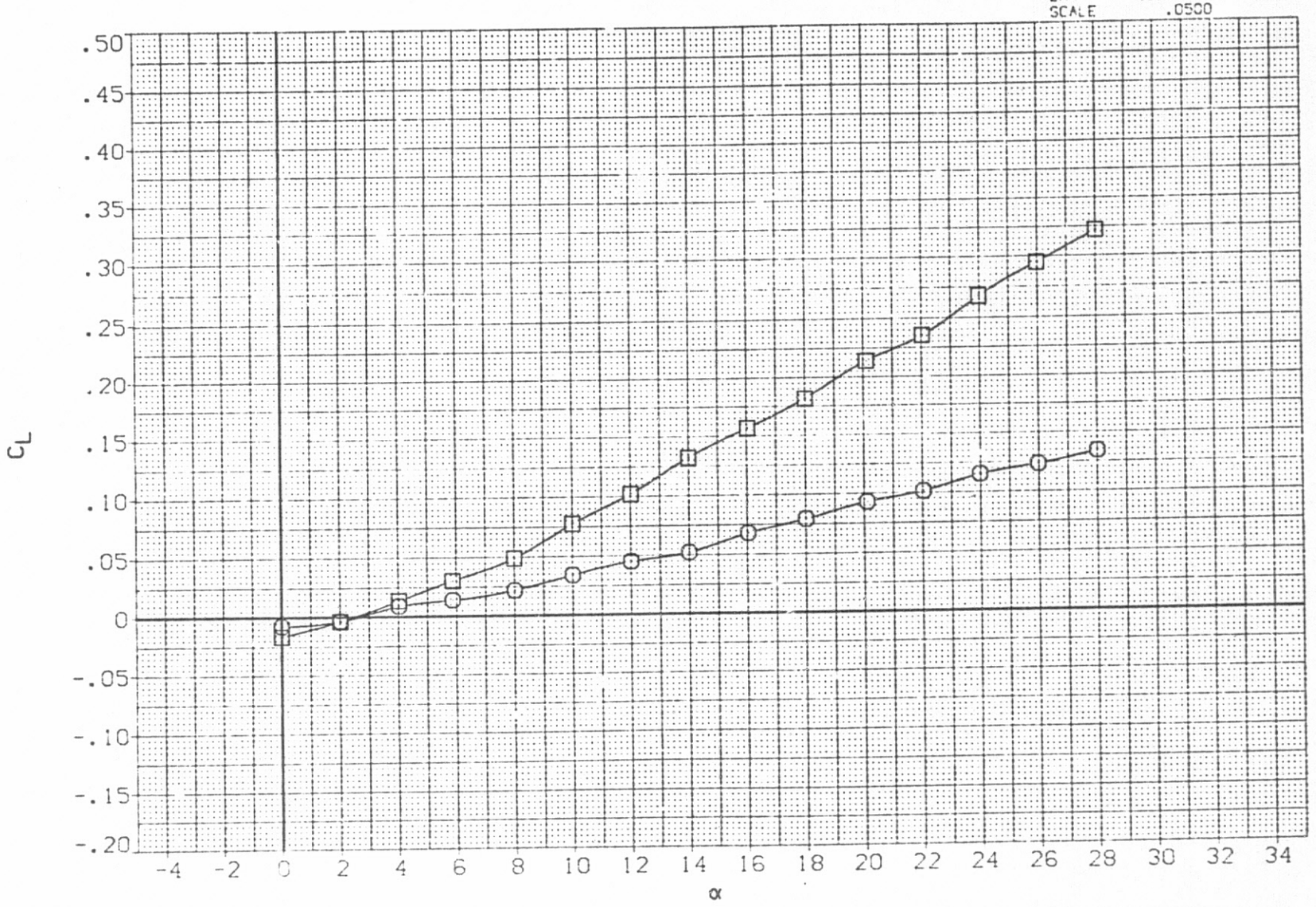

FIG 5 LONGITUDINAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - CONFIGURATION B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH054)	○	B1V1
(RFH051)	□	B1V1GC2

MACH	BETA
.067	.000
.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

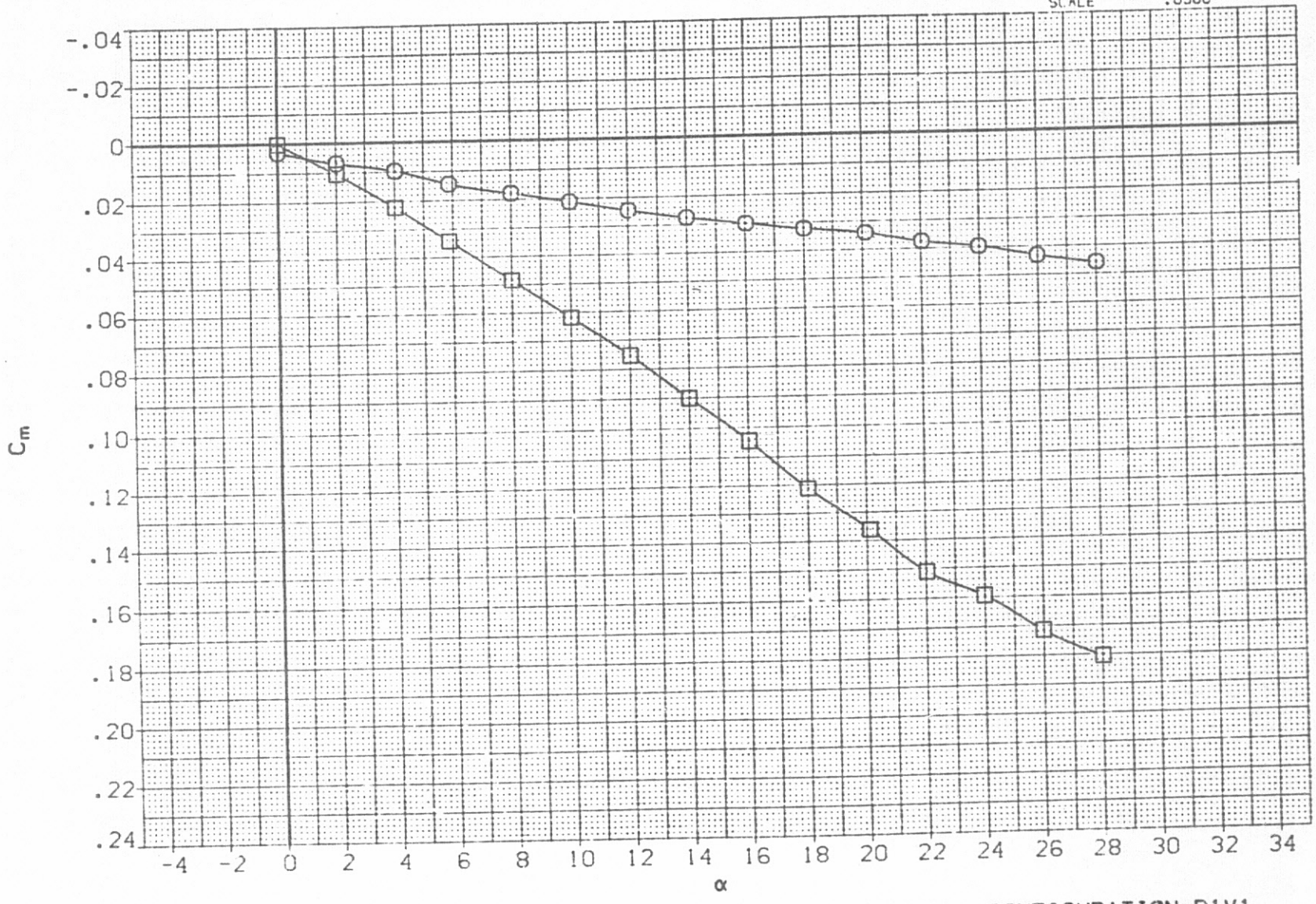

FIG 5 LONGITUDINAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - CONFIGURATION B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH054)	○	B1V1
(RFH051)	□	B1V1GC2

MACH	BETA
.067	.000
.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

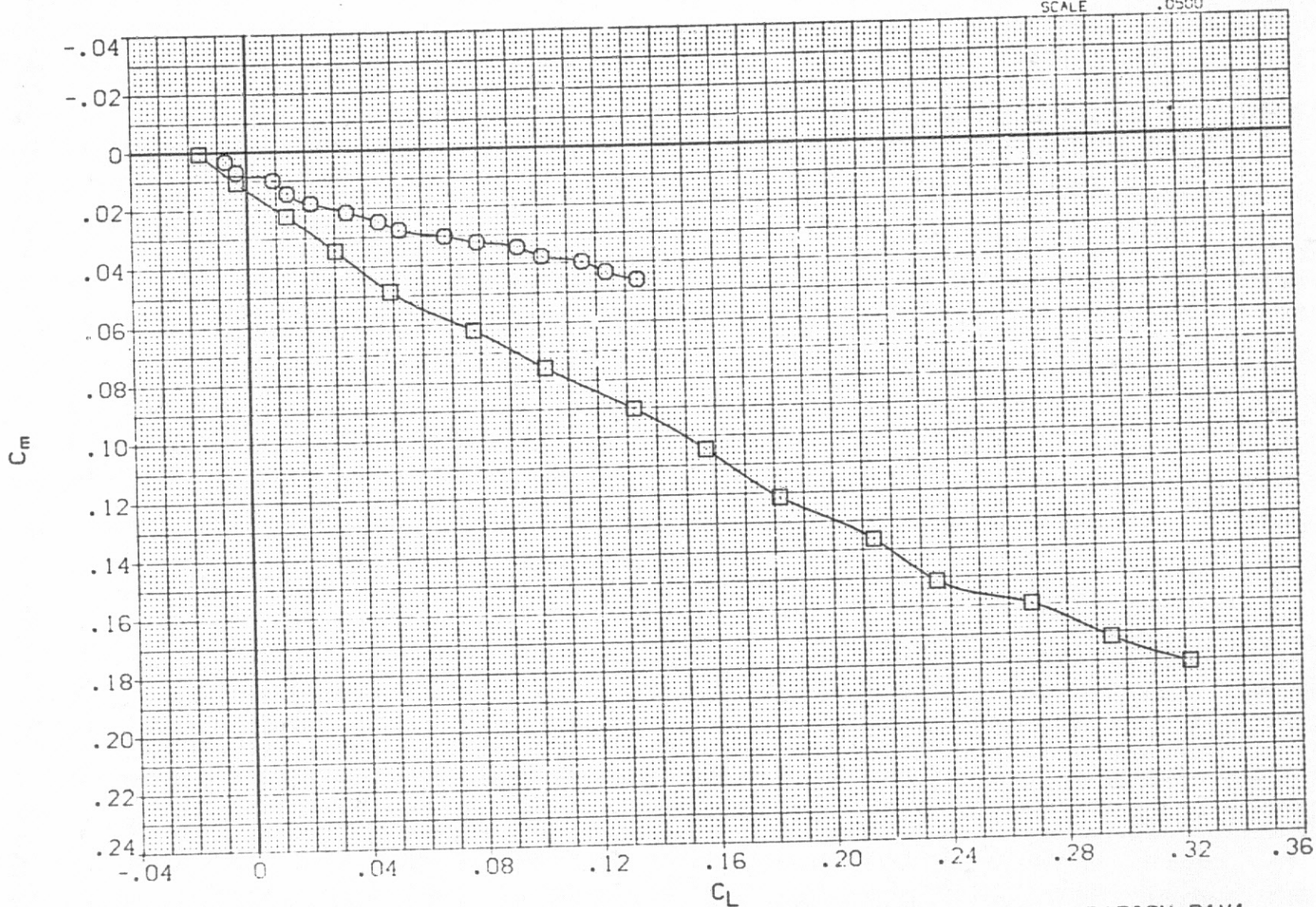

FIG 5 LONGITUDINAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - CONFIGURATION B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH005)	□	W2B1V1H1F(1.0)	.000	.067	.000
(RFH017)	◇	W2B1V1H2F(1.0)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

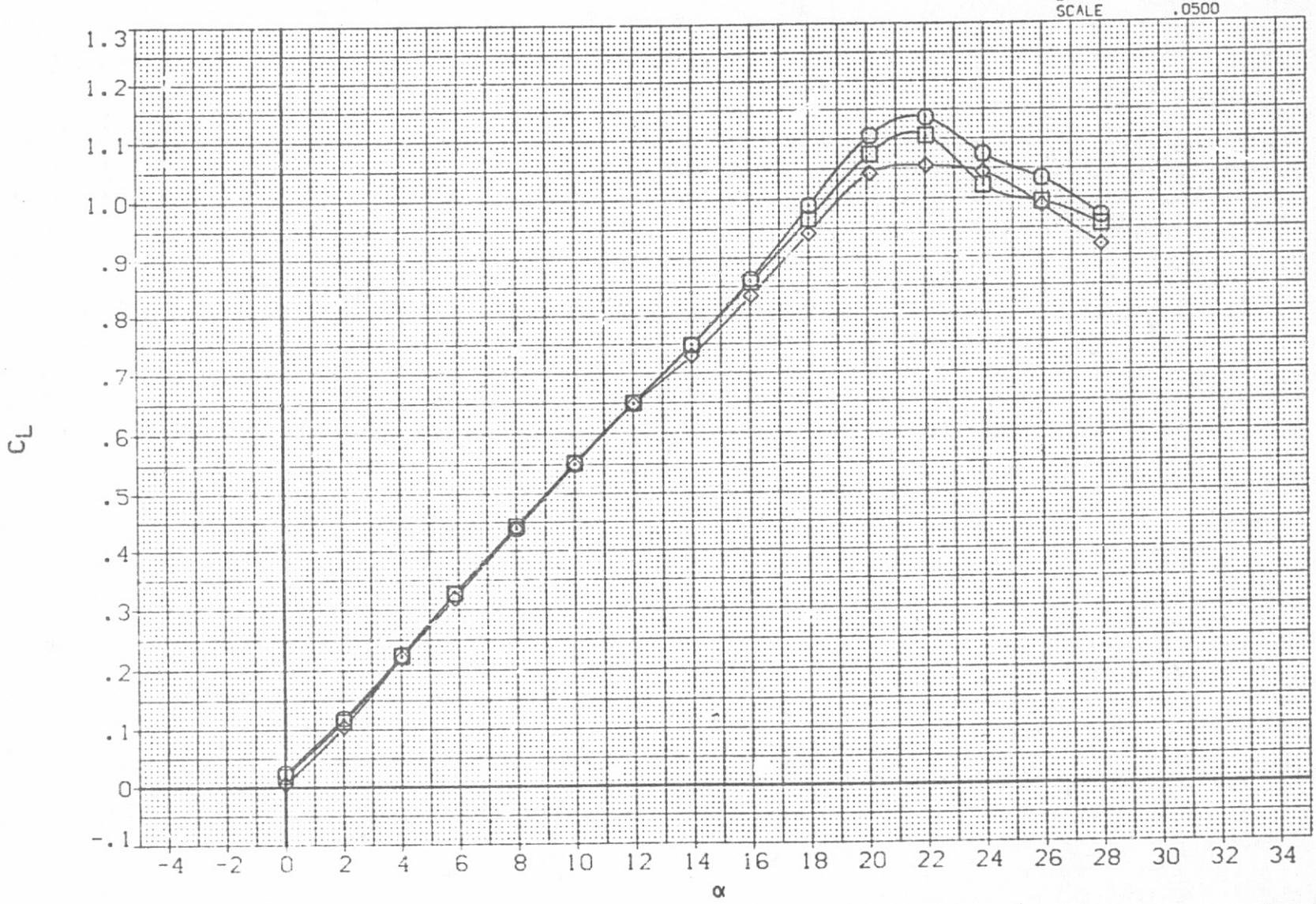

FIG 6 LONGITUDINAL EFFECTS OF HORIZONTAL TAILS AT POSITION 1 WITH ZERO INCIDENCE FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH005)	□	W2B1V1H1F(1.0)
(RFH017)	◇	W2B1V1H2F(1.0)

ELEVN	MALH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

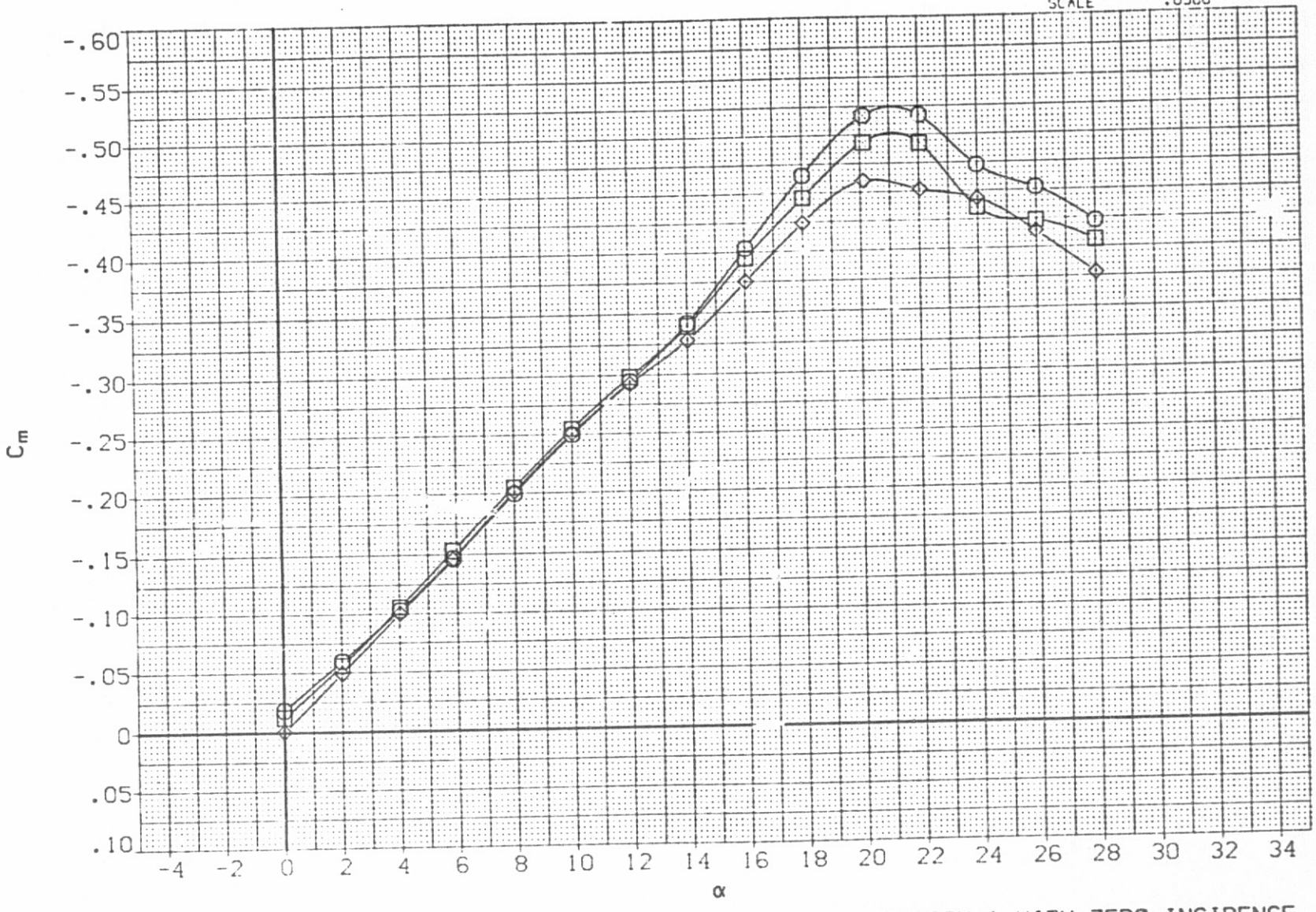

FIG 6 LONGITUDINAL EFFECTS OF HORIZONTAL TAILS AT POSITION 1 WITH ZERO INCIDENCE FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH005)	□	W2B1V1H1F(1.0)	.000	.067	.000
(RFH017)	◇	W2B1V1H2F(1.0)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

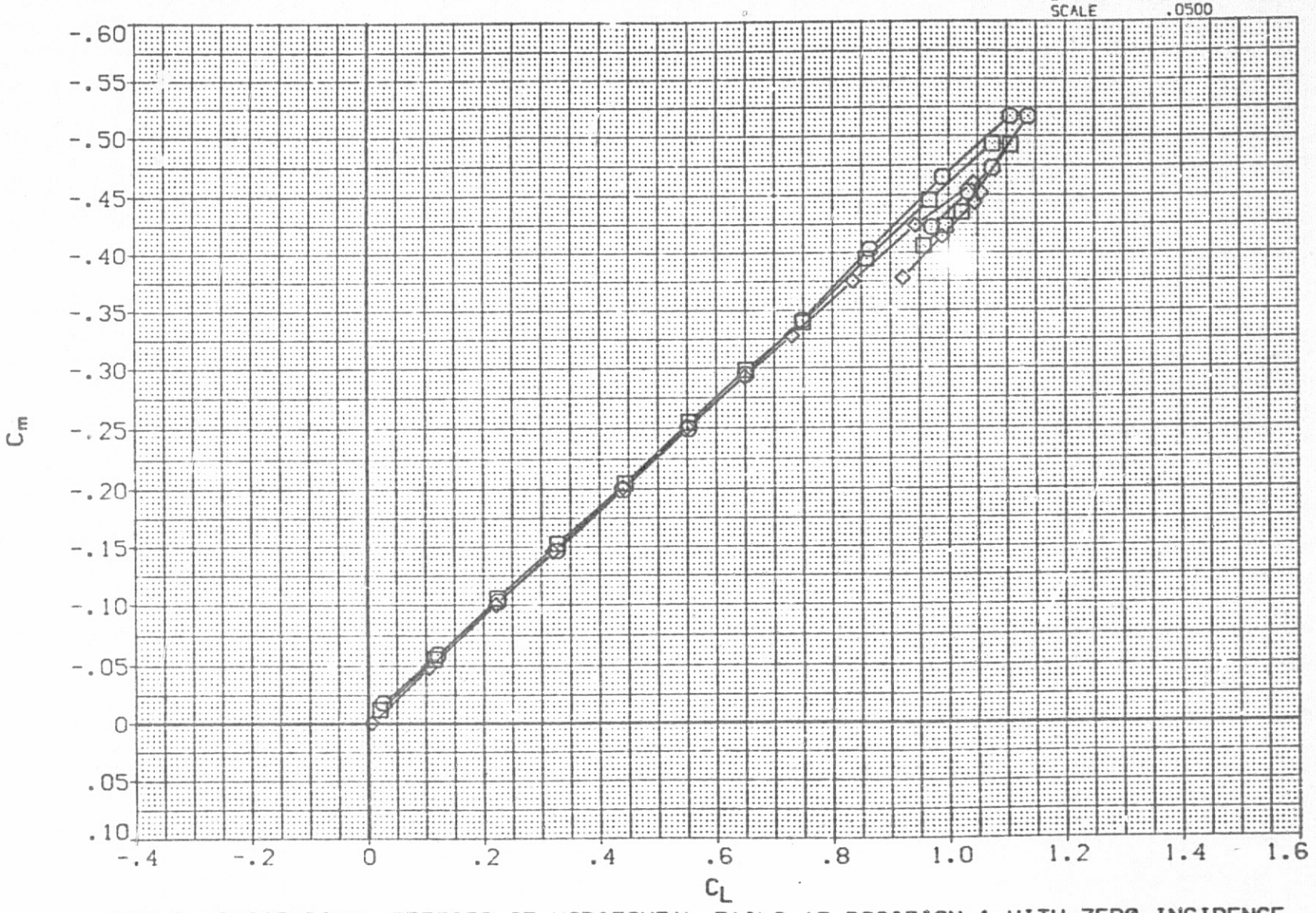

FIG 6 LONGITUDINAL EFFECTS OF HORIZONTAL TAILS AT POSITION 1 WITH ZERO INCIDENCE FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH022)	□	W2B1V1H2F(2.0)	.000	.067	.000
(RFH025)	◇	W2B1V1H1F(2.0)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

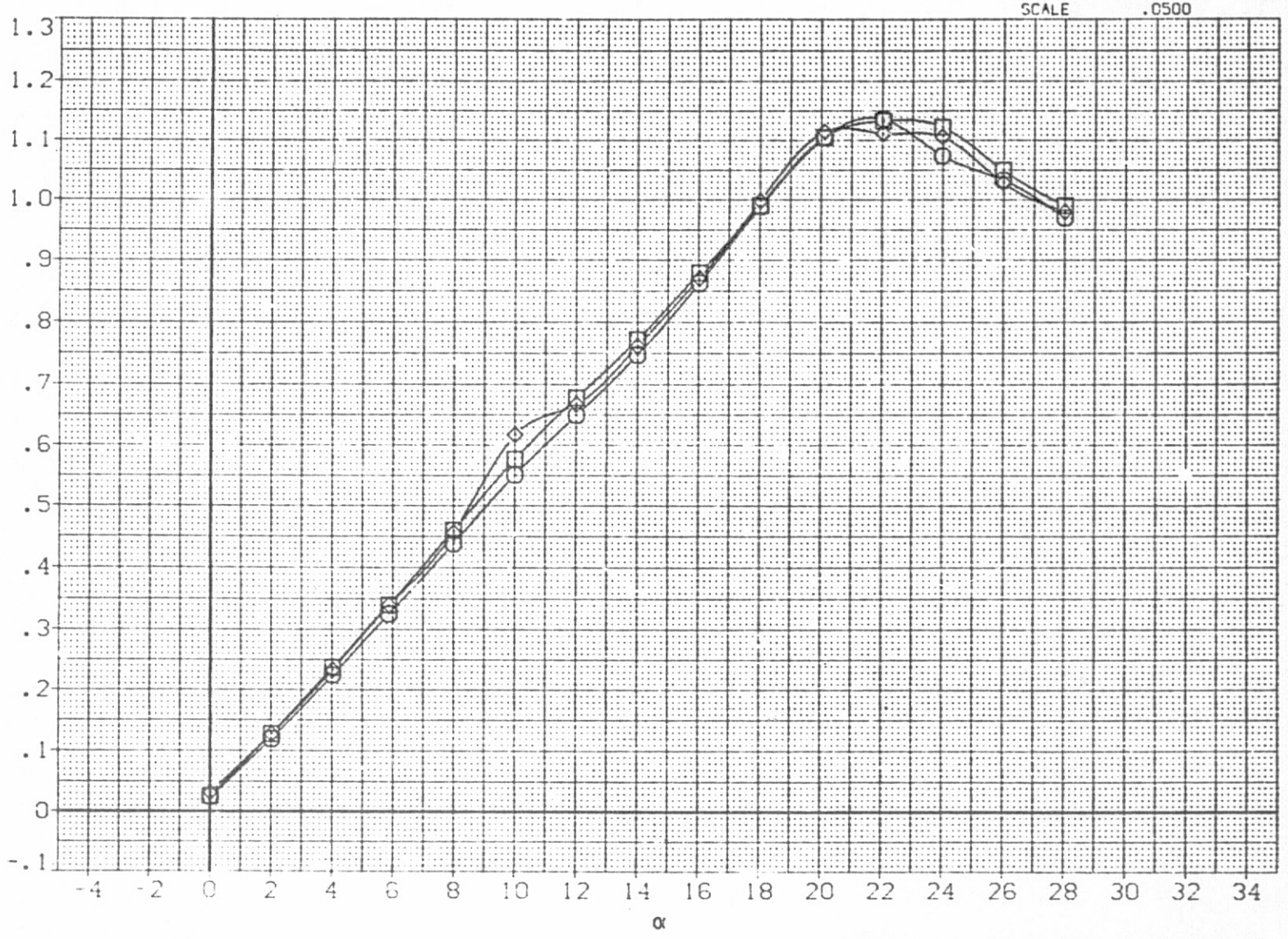

FIG 7 LONGITUDINAL EFFECTS OF HORIZONTAL TAILS AT POSITION 2 WITH ZERO INCIDENCE FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH022)	□	W2B1V1H2F(2.0)
(RFH025)	◇	W2B1V1H1F(2.0)

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

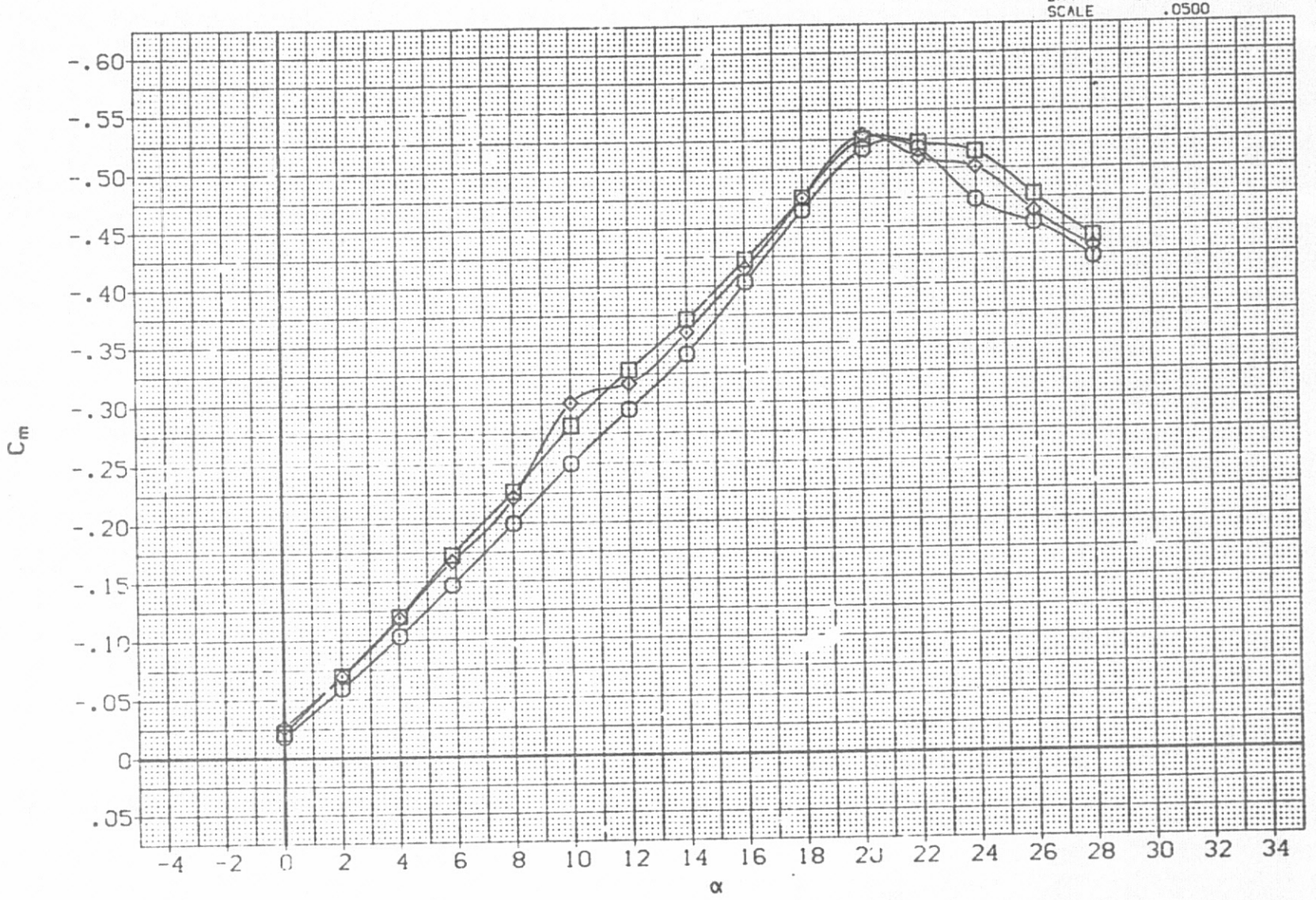

FIG 7 LONGITUDINAL EFFECTS OF HORIZONTAL TAILS AT POSITION 2 WITH ZERO INCIDENCE FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH022)	□	W2B1V1H2F(2.0)	.000	.067	.000
(RFH025)	◇	W2B1V1H1F(2.0)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

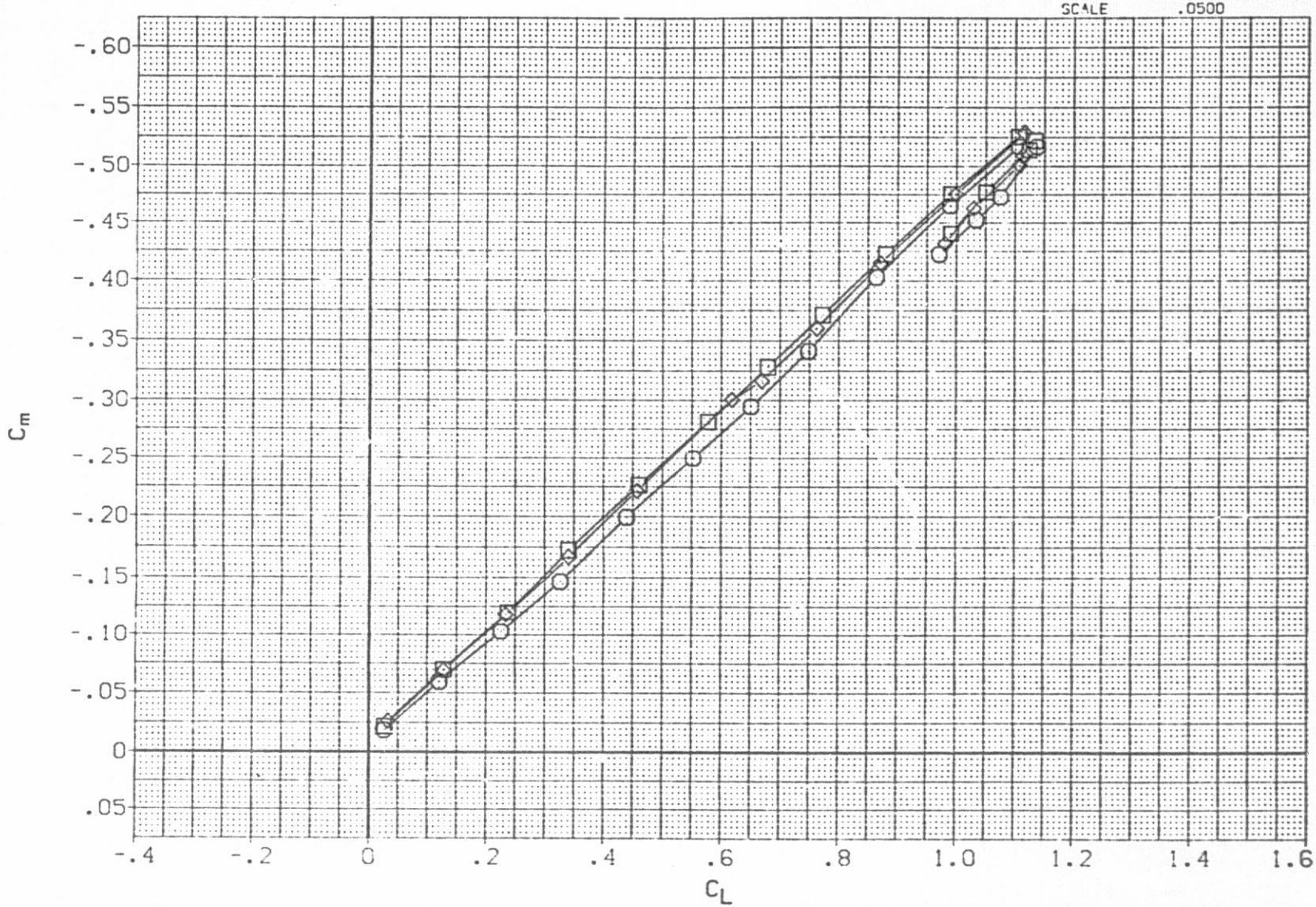

FIG 7 LONGITUDINAL EFFECTS OF HORIZONTAL TAILS AT POSITION 2 WITH ZERO INCIDENCE FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	◇	W2B1V1	.000	.067	.000
(RFH005)	□	W2B1V1H1F(1.0)	.000	.067	.000
(RFH011)	⋈	W2B1V1H1F(1.+10)	.000	.067	.000
(RFH012)	△	W2B1V1H1F(1.-10)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

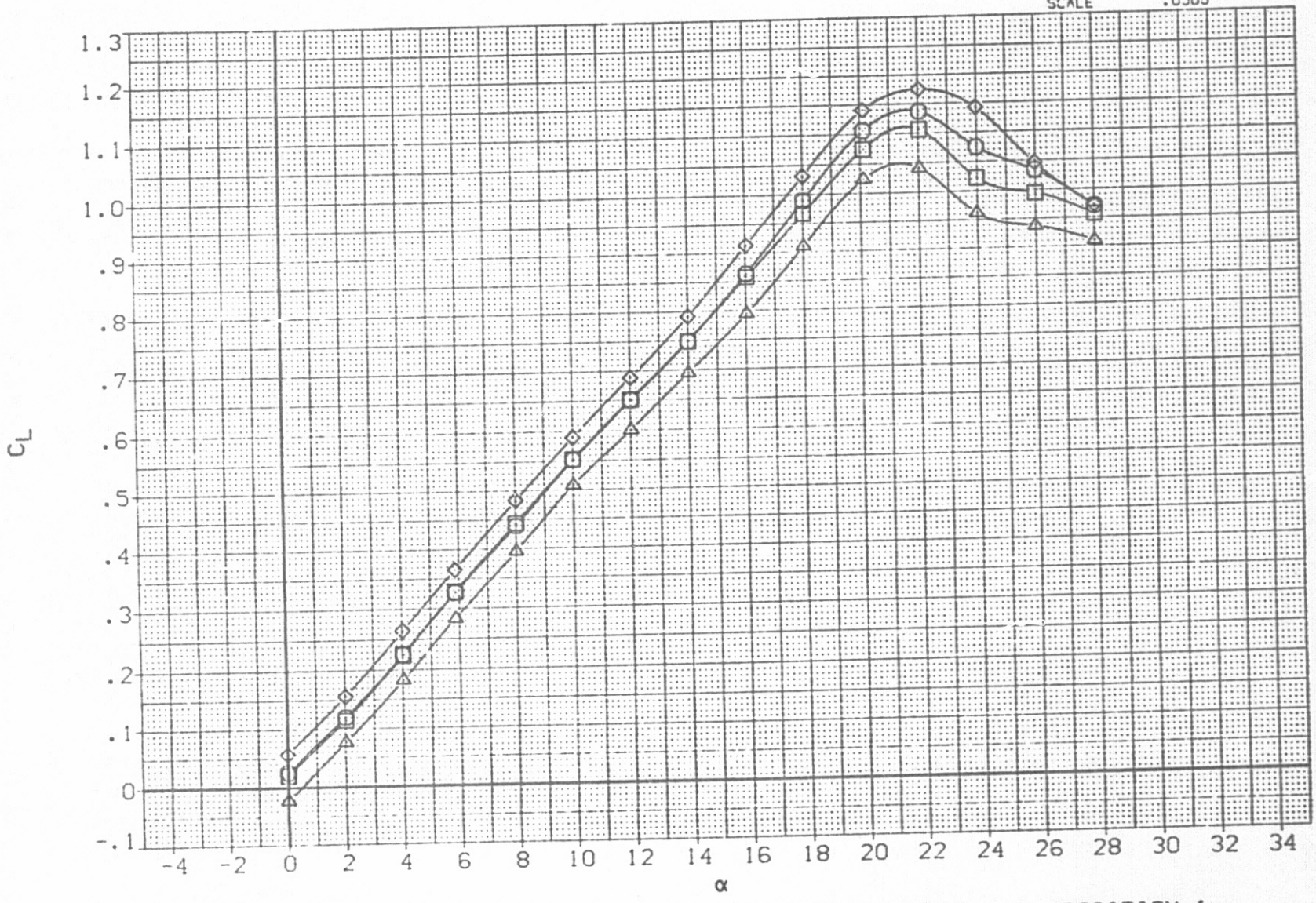

FIG 8 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 1 AT POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	◇	W2B1V1	.000	.067	.000
(RFH005)	□	W2B1V1H1F(1.0)	.000	.067	.000
(RFH011)	○	W2B1V1H1F(1.+10)	.000	.067	.000
(RFH012)	△	W2B1V1H1F(1.-10)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

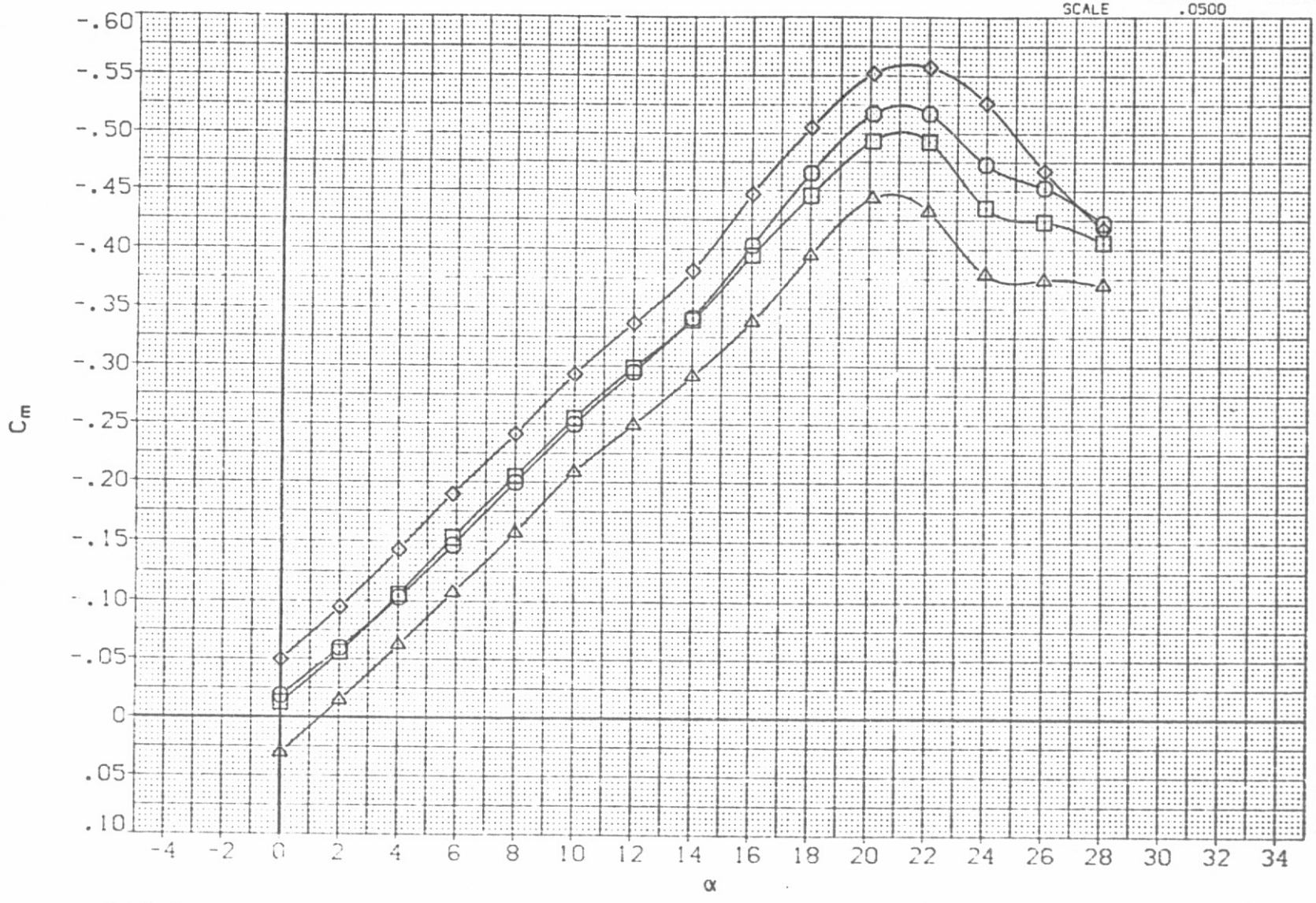

FIG 8 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 1 AT POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	◇	W2B1V1
(RFH005)	□	W2B1V1H1F(1.0)
(RFH011)	⊠	W2B1V1H1F(1.+10)
(RFH012)	△	W2B1V1H1F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XC
YMRP	.0000	IN. YC
ZMRP	400.0000	IN. ZC
SCALE	.0500	

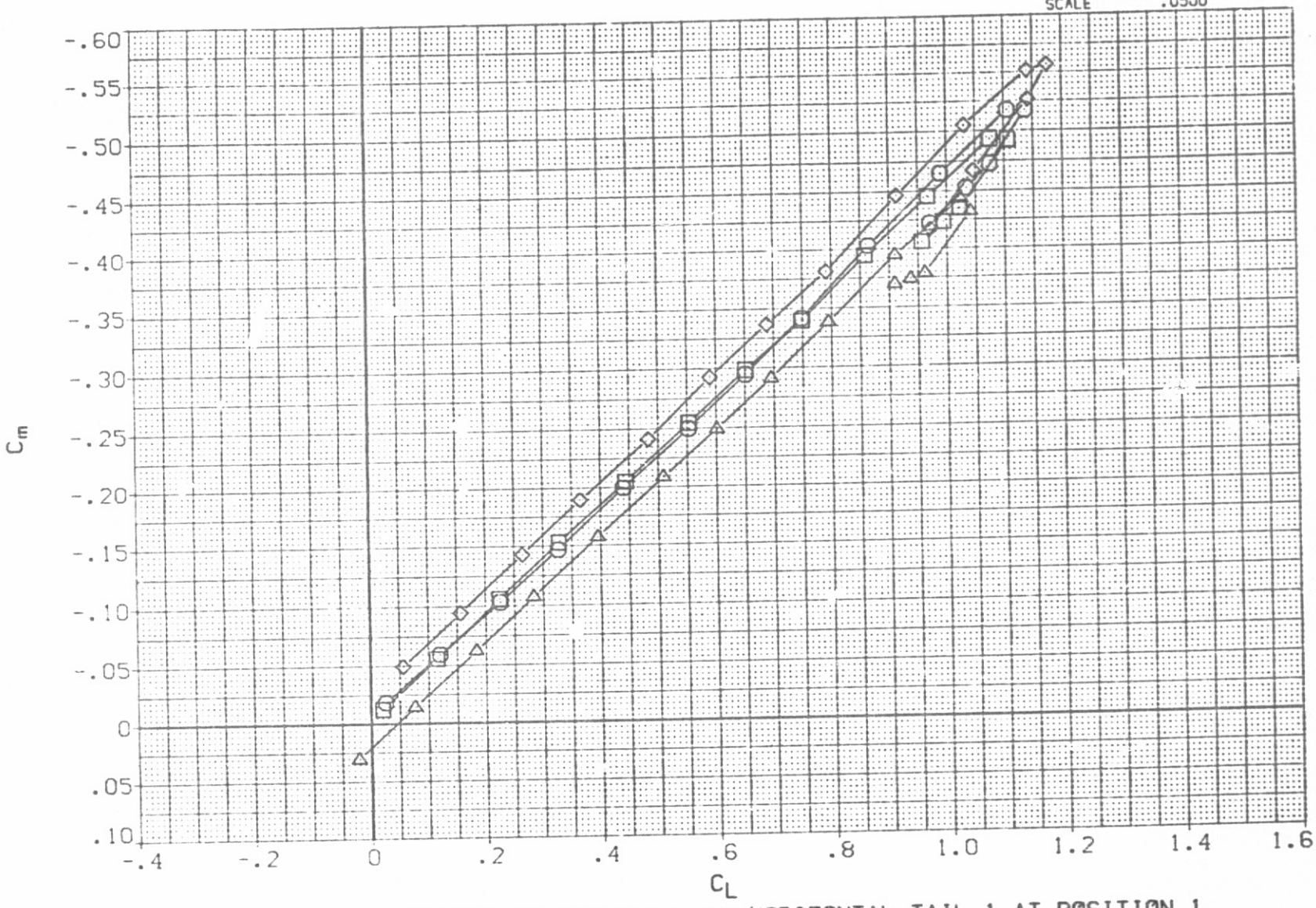

FIG 8 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 1 AT POSITION 1
FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH040)	○	W2B1V1	.000	.067	.000
(RFH017)	□	W2B1V1H2F(1.0)	.000	.067	.000
(RFH019)	◇	W2B1V1H2F(1.+10)	.000	.067	.000
(RFH060)	△	W2B1V1H2F(1.-10)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ. FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

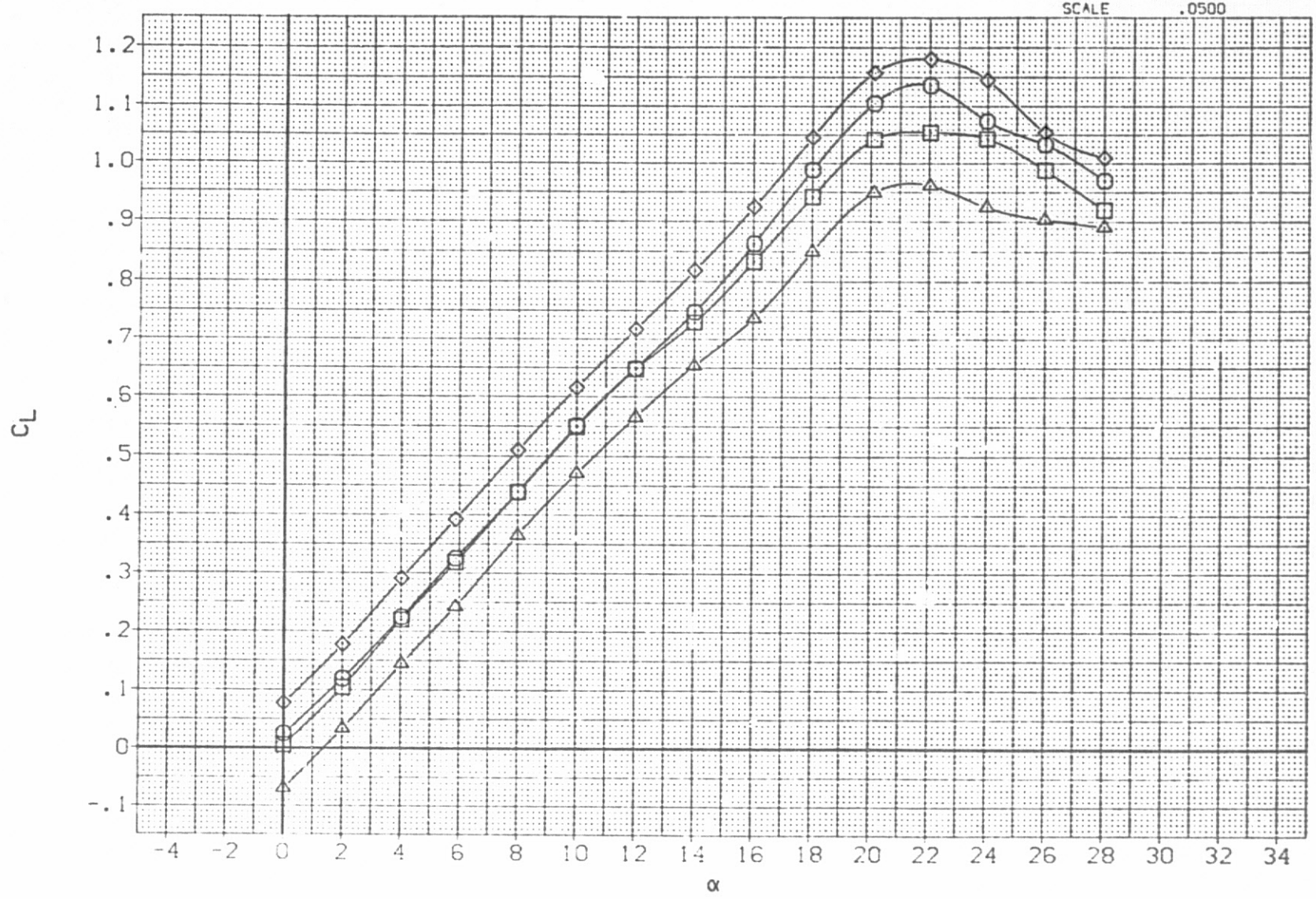

FIG 9 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 2 AT POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH017)	□	W2B1V1H2F(1.0)
(RFH019)	◇	W2B1V1H2F(1.+10)
(RFH060)	△	W2B1V1H2F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

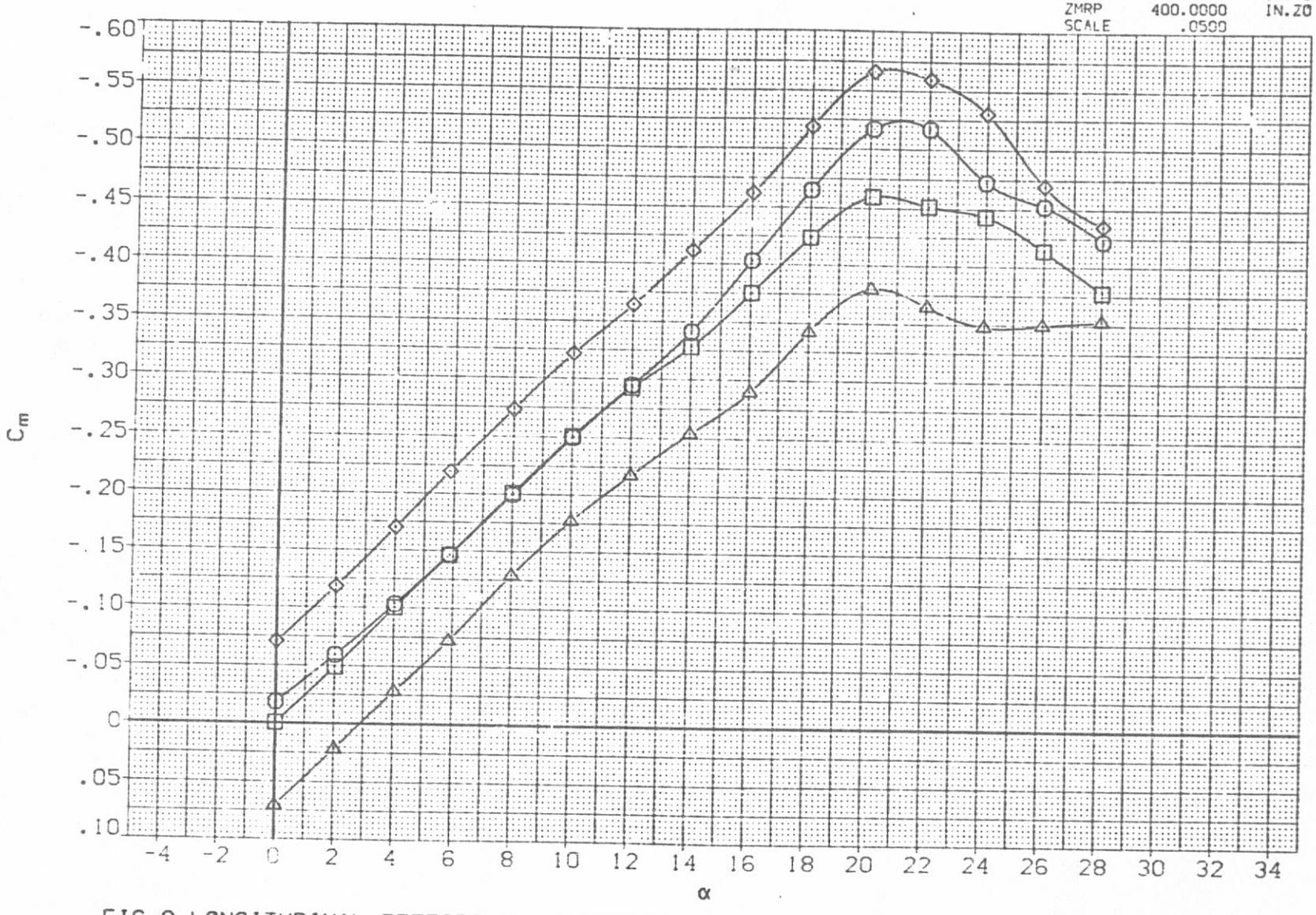

FIG 9 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 2 AT POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH017)	□	W2B1V1H2F(1.0)
(RFH019)	◇	W2B1V1H2F(1.+10)
(RFH060)	△	W2B1V1H2F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XC
YMRP	.0000	IN. YC
ZMRP	400.0000	IN. ZC
SCALE	.0500	

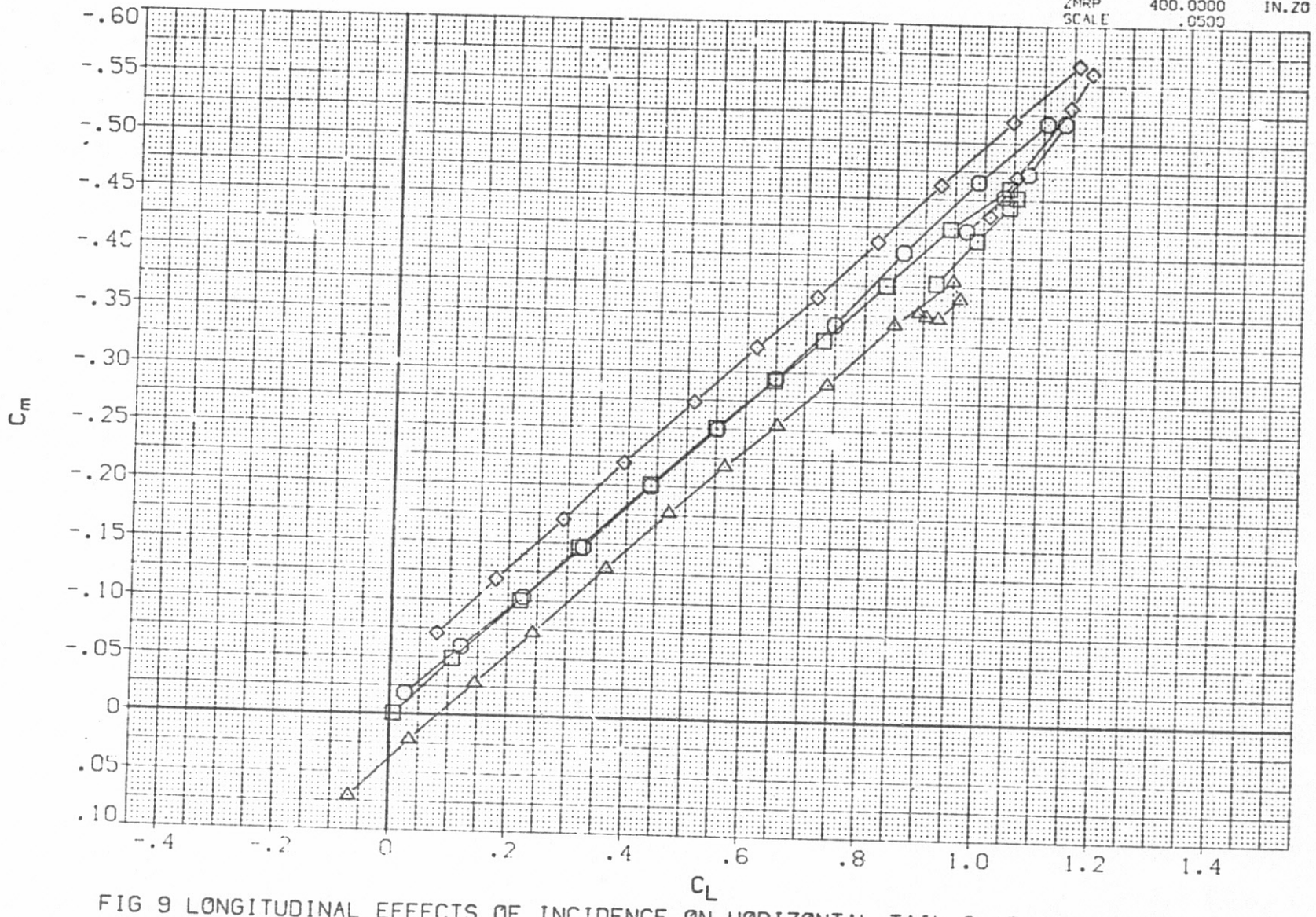

FIG 9 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 2 AT POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH041)	○	W1B1V1
(RFH057)	□	W1B1V1H2F(1.0)
(RFH058)	◇	W1B1V1H2F(1.10)
(RFH059)	△	W1B1V1H2F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

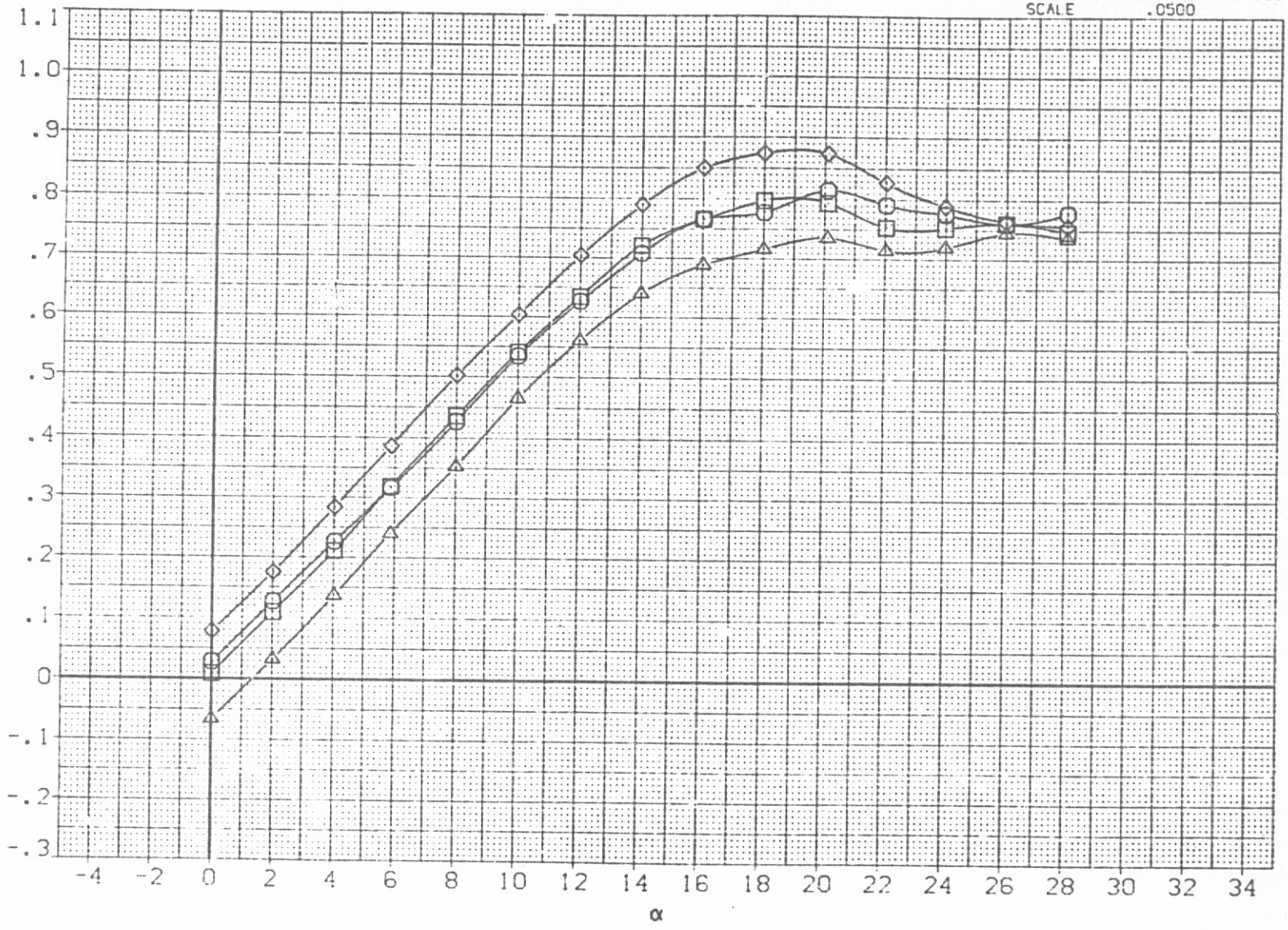

FIG 10 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 2 AT POSITION 1 FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH041)	○	W1B1V1
(RFH057)	□	W1B1V1H2F(1.0)
(RFH058)	◇	W1B1V1H2F(1.10)
(RFH059)	△	W1B1V1H2F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	.000
.000	.067	.000
.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.6000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

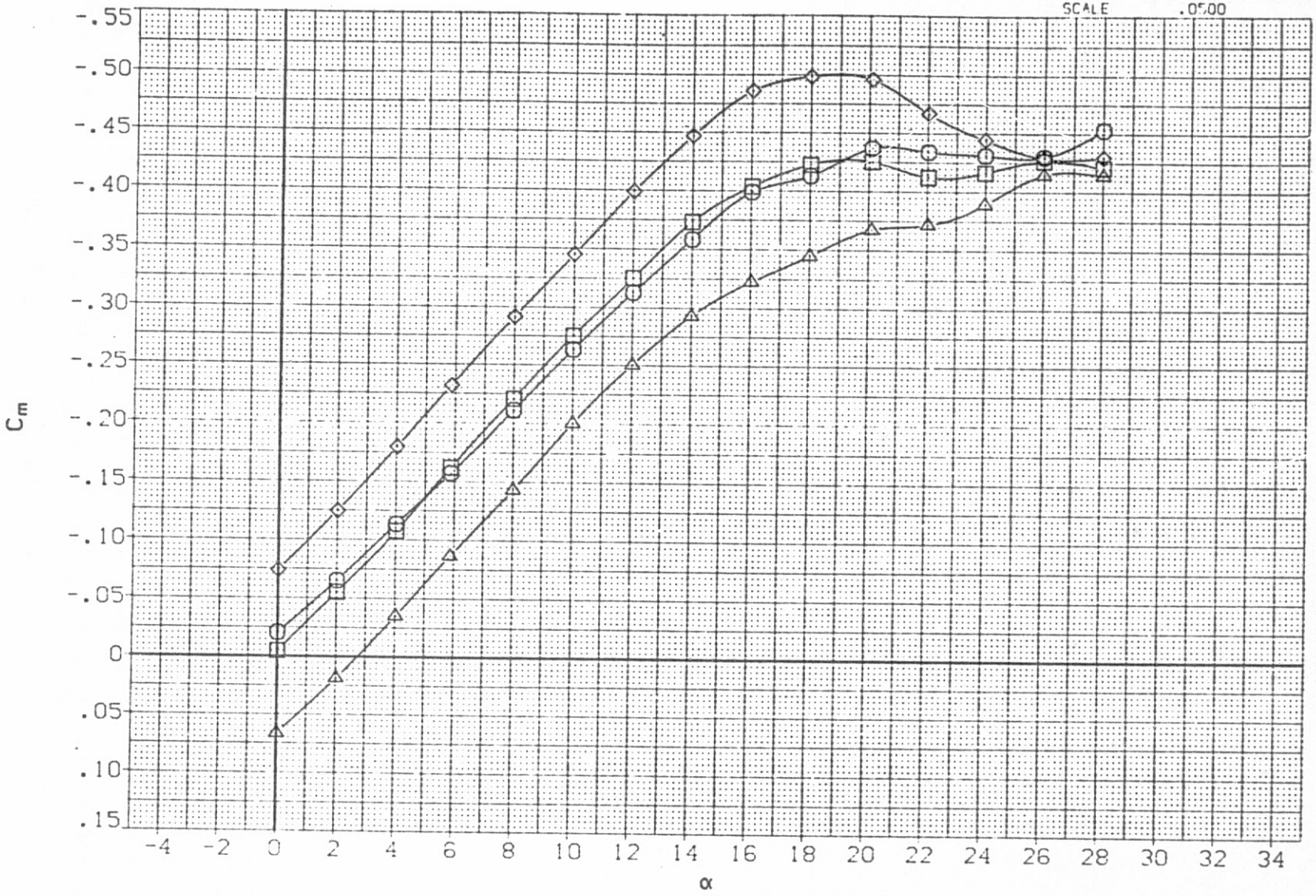

FIG 10 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 2 AT POSITION 1 FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH041)	○	W1B1V1	.000	.067	.000
(RFH057)	□	W1B1V1H2F(1.0)	.000	.067	.000
(RFH058)	◇	W1B1V1H2F(1.10)	.000	.067	.000
(RFH059)	△	W1B1V1H2F(1.-10)	.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XC
YMRP	.0000	IN. YC
ZMRP	400.0000	IN. ZC
SCALE	.0500	

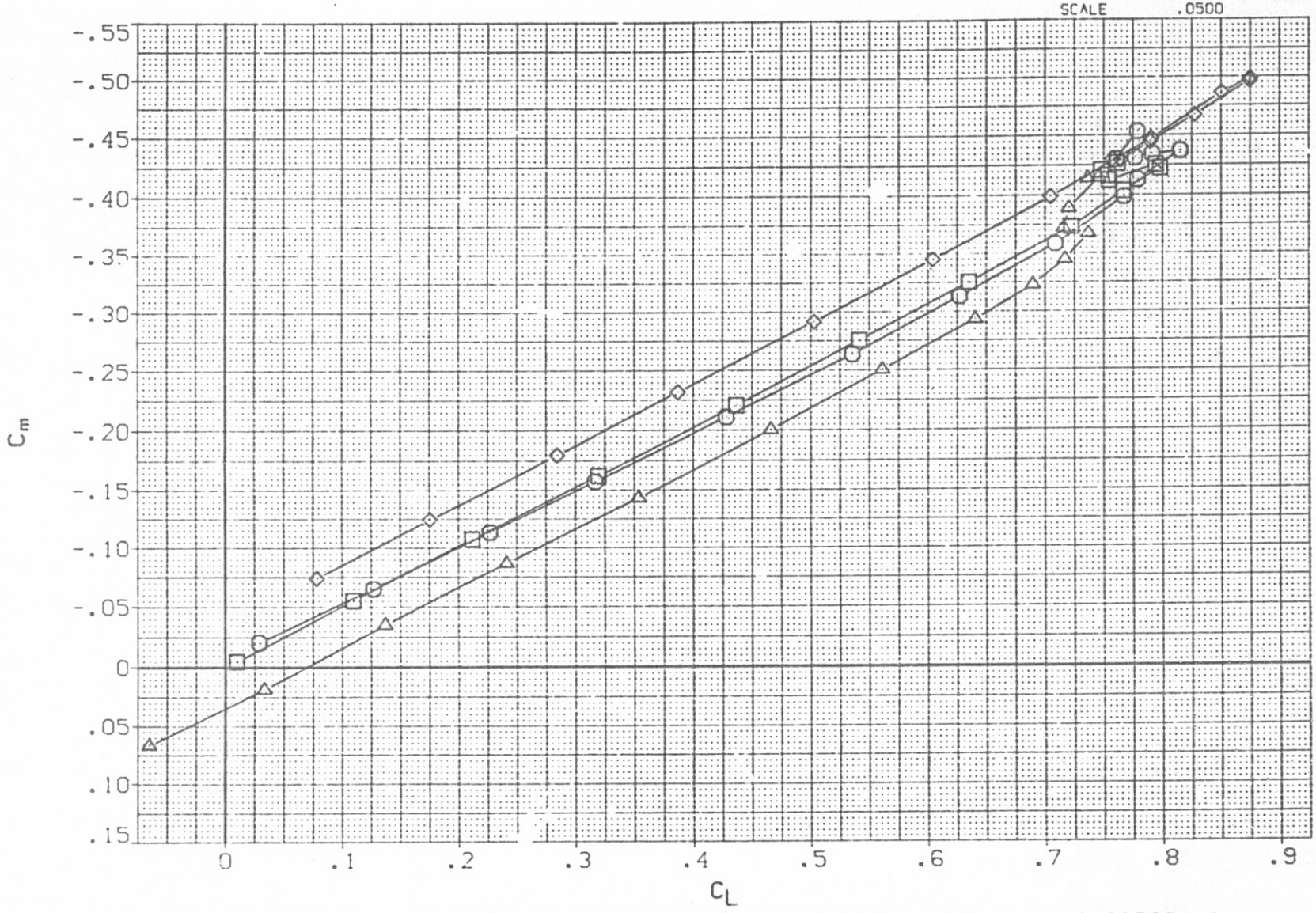

FIG 10 LONGITUDINAL EFFECTS OF INCIDENCE ON HORIZONTAL TAIL 2 AT POSITION 1 FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH003)	□	W2B1V1
(RFH004)	◇	W2B1V1

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

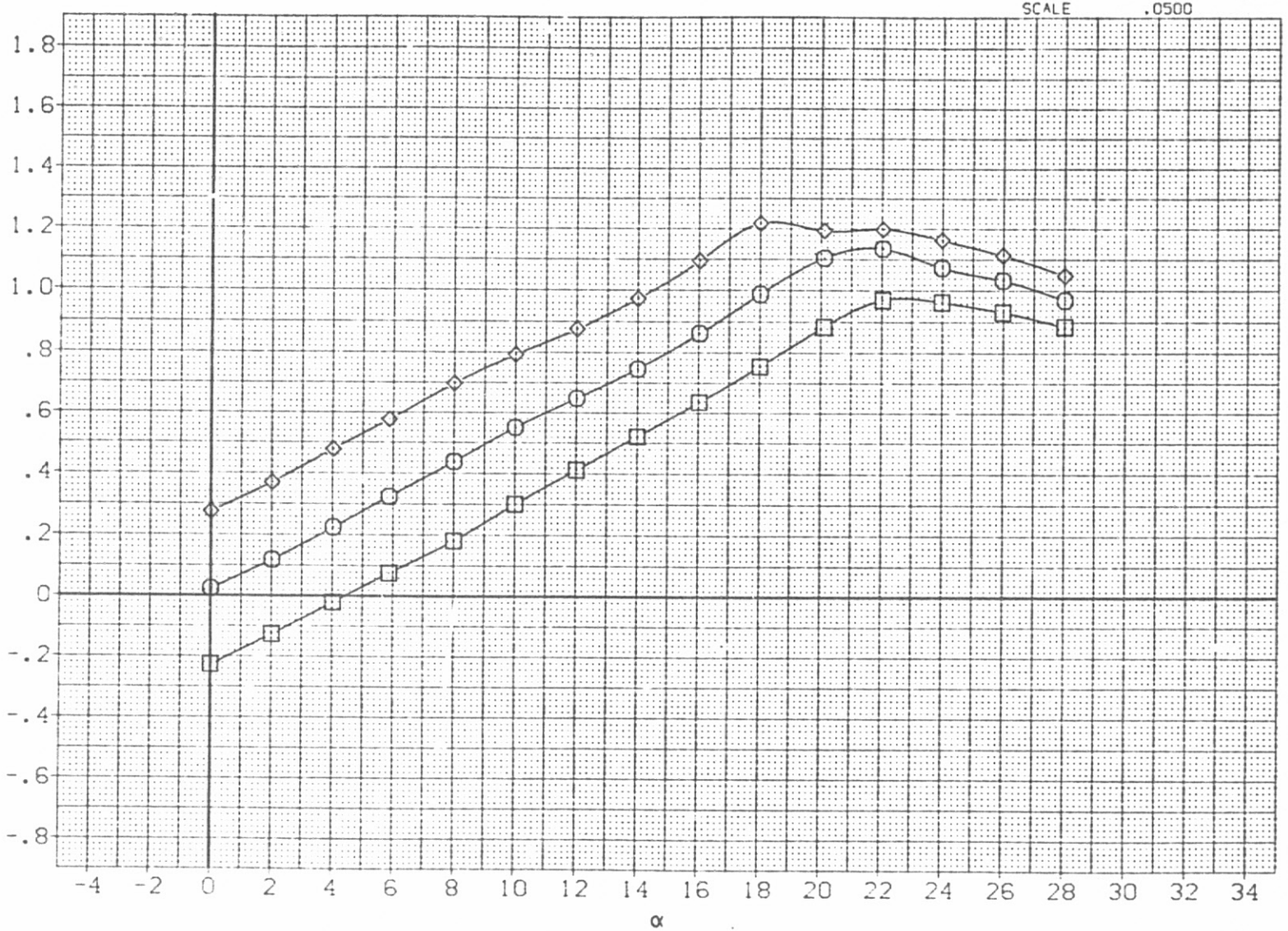

FIG 11 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH003)	□	W2B1V1
(RFH004)	◇	W2B1V1

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

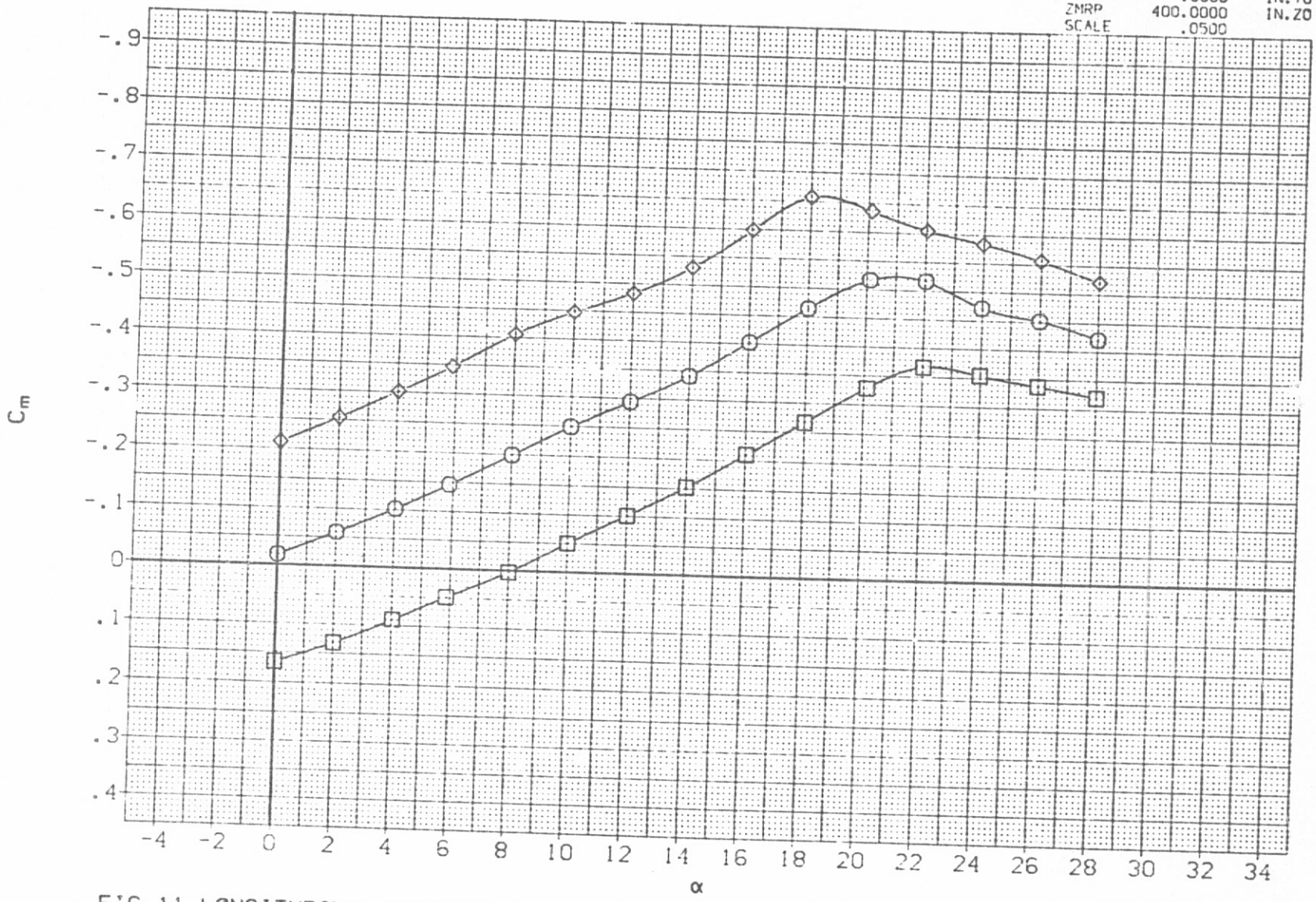

FIG 11 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH040)	○	W2B1V1
(RFH003)	□	W2B1V1
(RFH004)	◇	W2B1V1

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

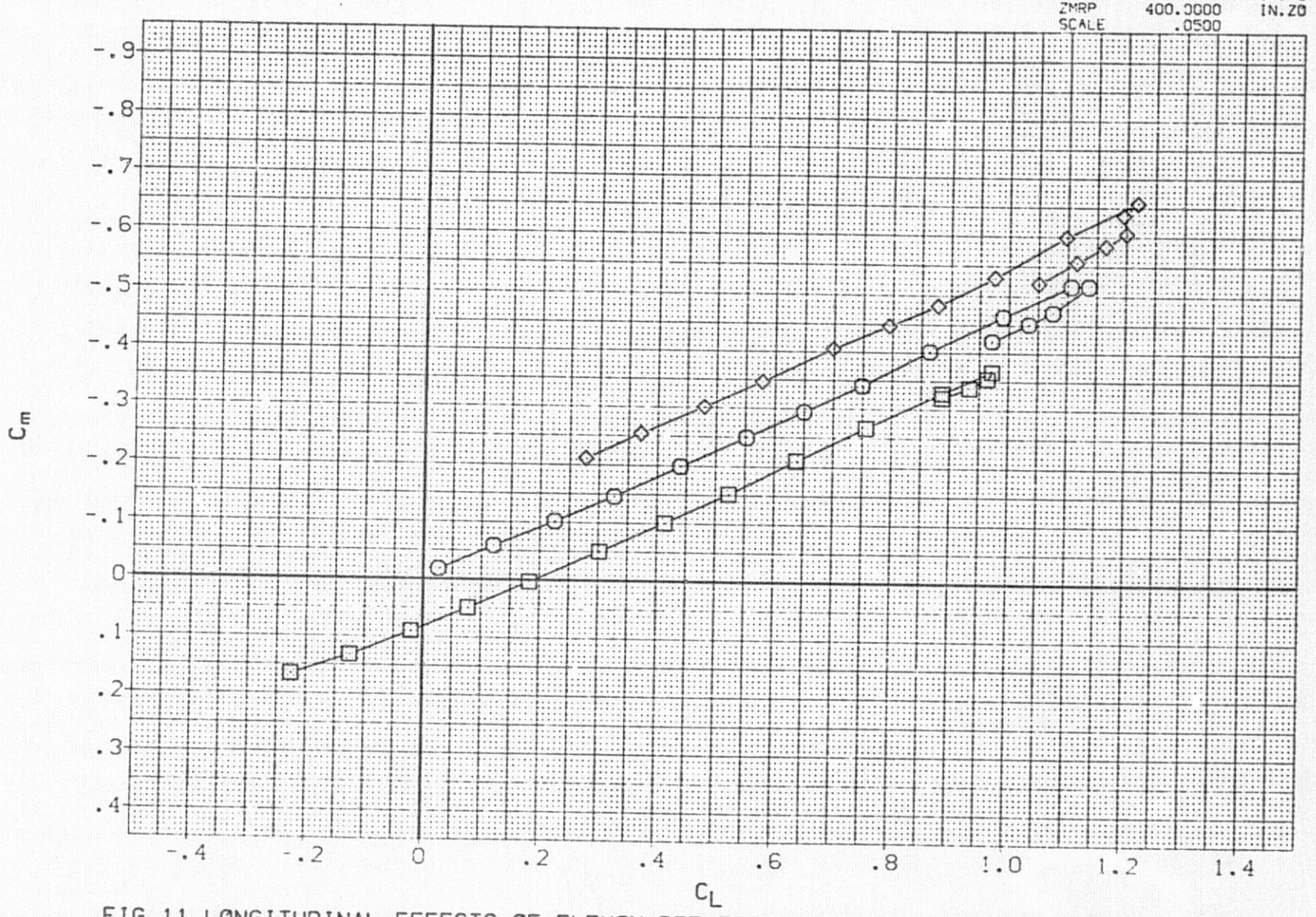

FIG 11 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH041)	○	W1B1V1	.000	.067	.000
(RFH043)	□	W1B1V1	-10.000	.067	.000
(RFH044)	◇	W1B1V1	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

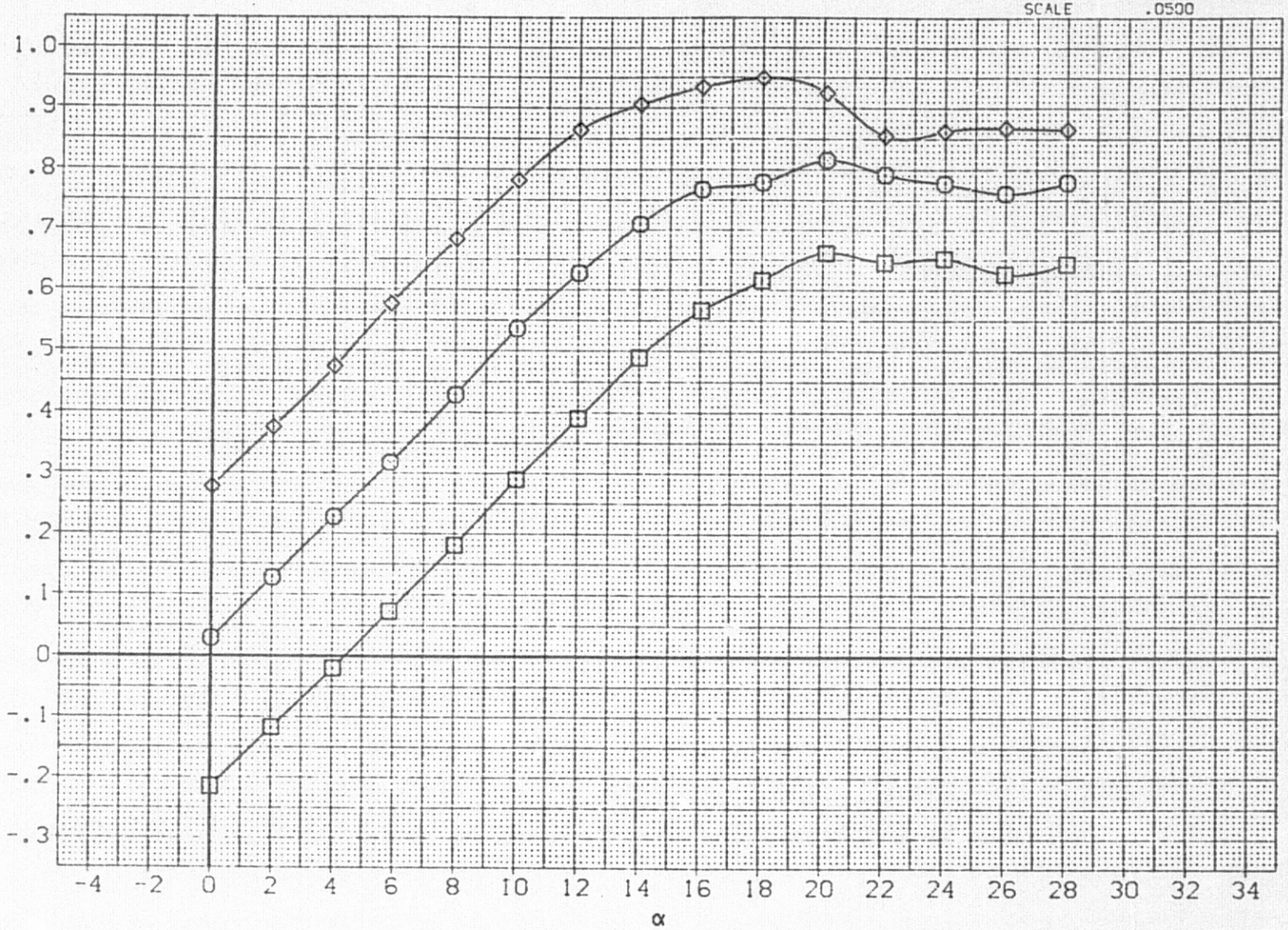

FIG 12 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH041)	○	W1B1V1
(RFH043)	□	W1B1V1
(RFH044)	◇	W1B1V1

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION		
SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

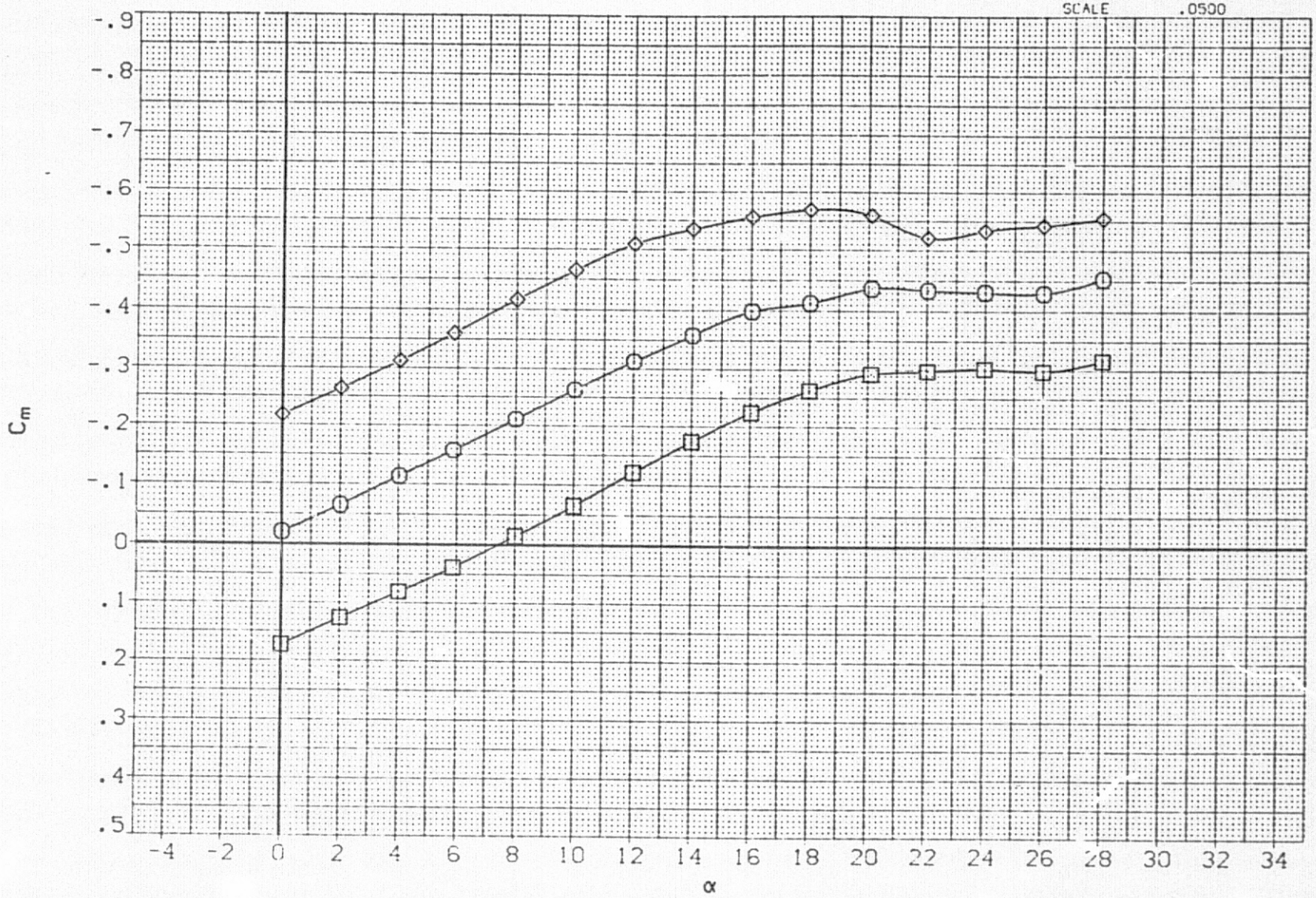

FIG 12 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH041)	○	W1B1V1	.000	.067	.000
(RFH043)	□	W1B1V1	-10.000	.067	.000
(RFH044)	◇	W1B1V1	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

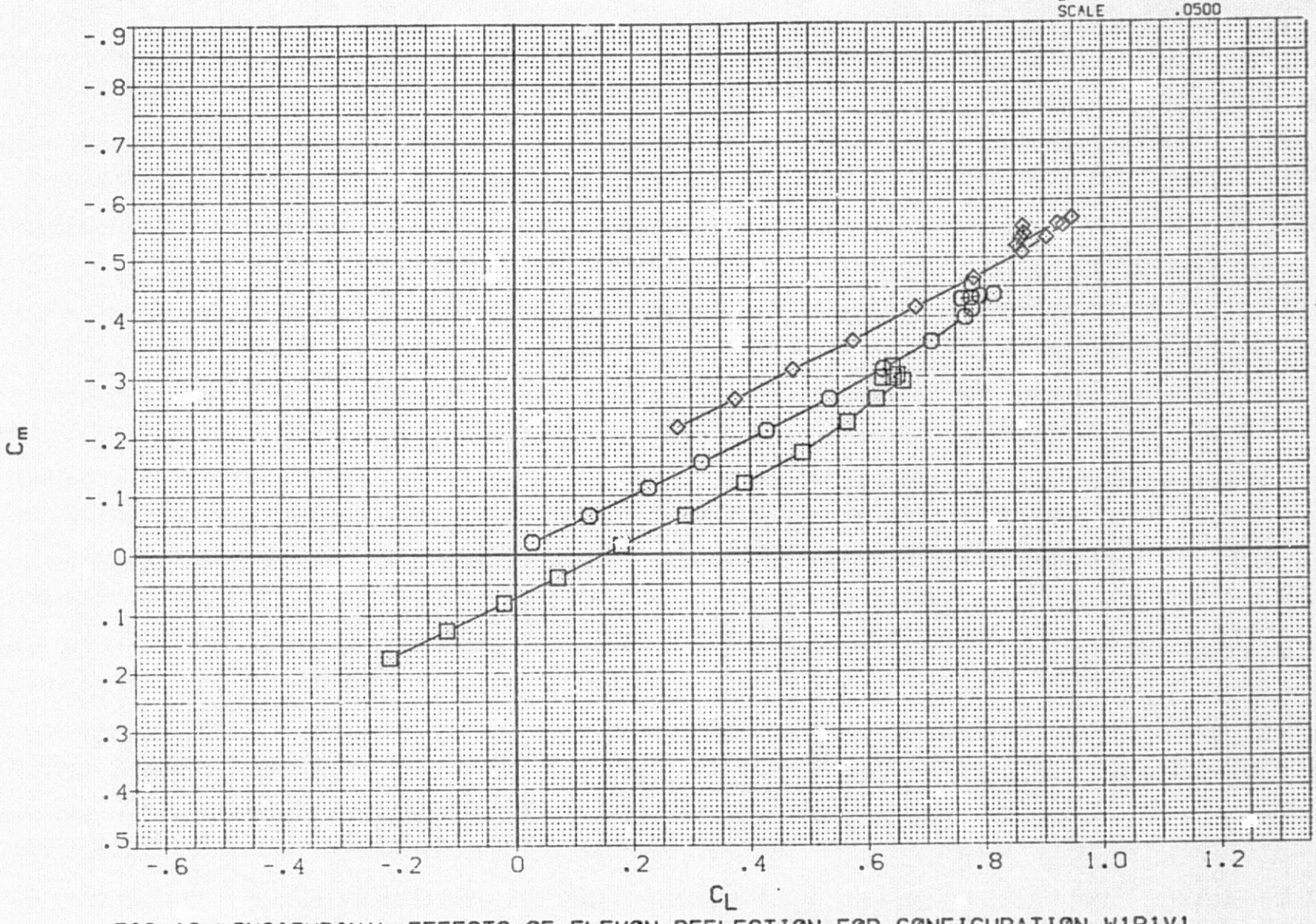

FIG 12 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W1B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH036)	○	W2B1V1GC2
(RFH039)	□	W2B1V1GC2
(RFH038)	◇	W2B1V1GC2

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XC
YMRP	.0000	IN. YC
ZMRP	400.0000	IN. ZC
SCALE	.0500	

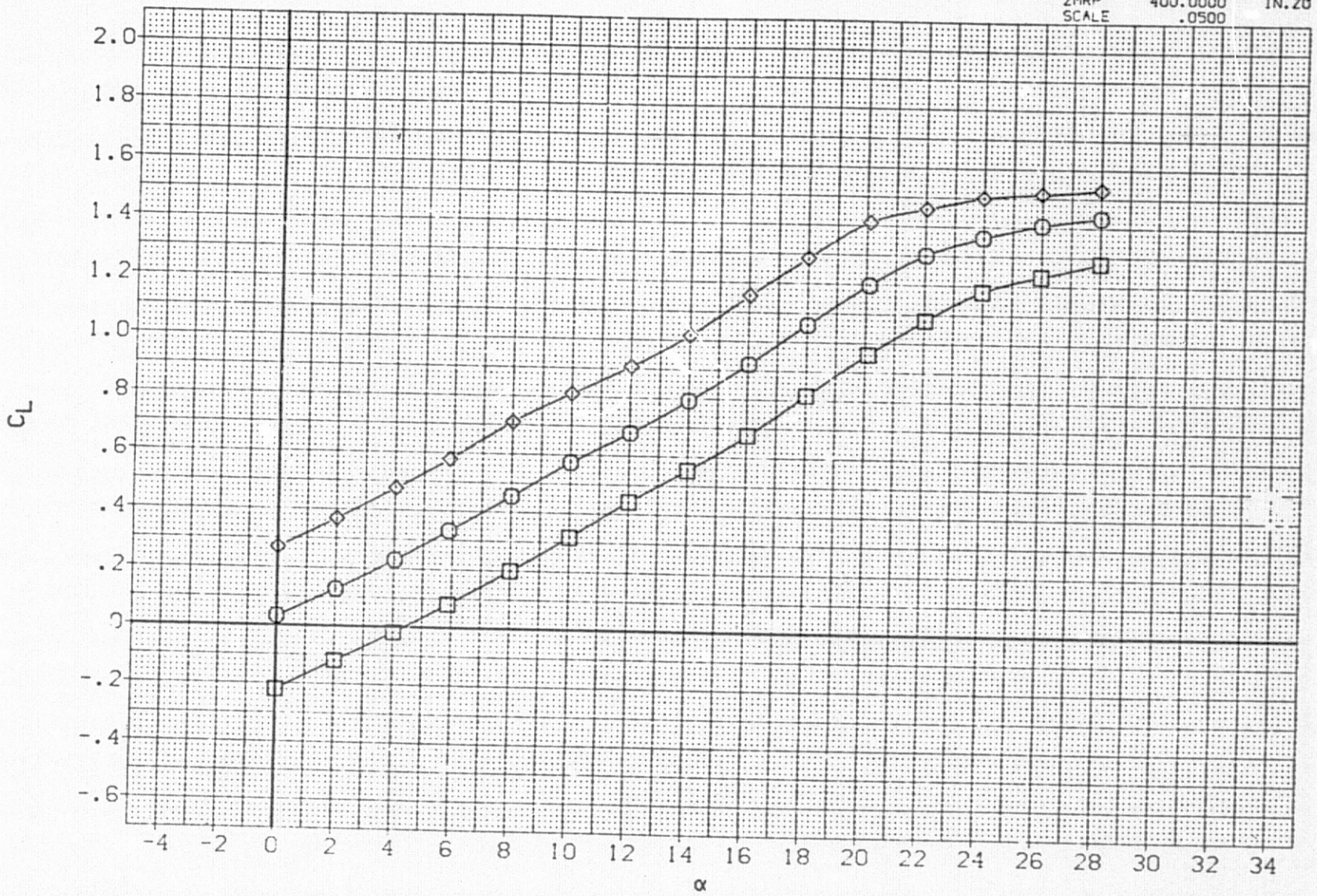

FIG 13 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1GC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH036)	○	W2B1V1GC2	.000	.067	.000
(RFH039)	□	W2B1 C2	-10.000	.067	.000
(RFH038)	◇	W2B1 C2	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

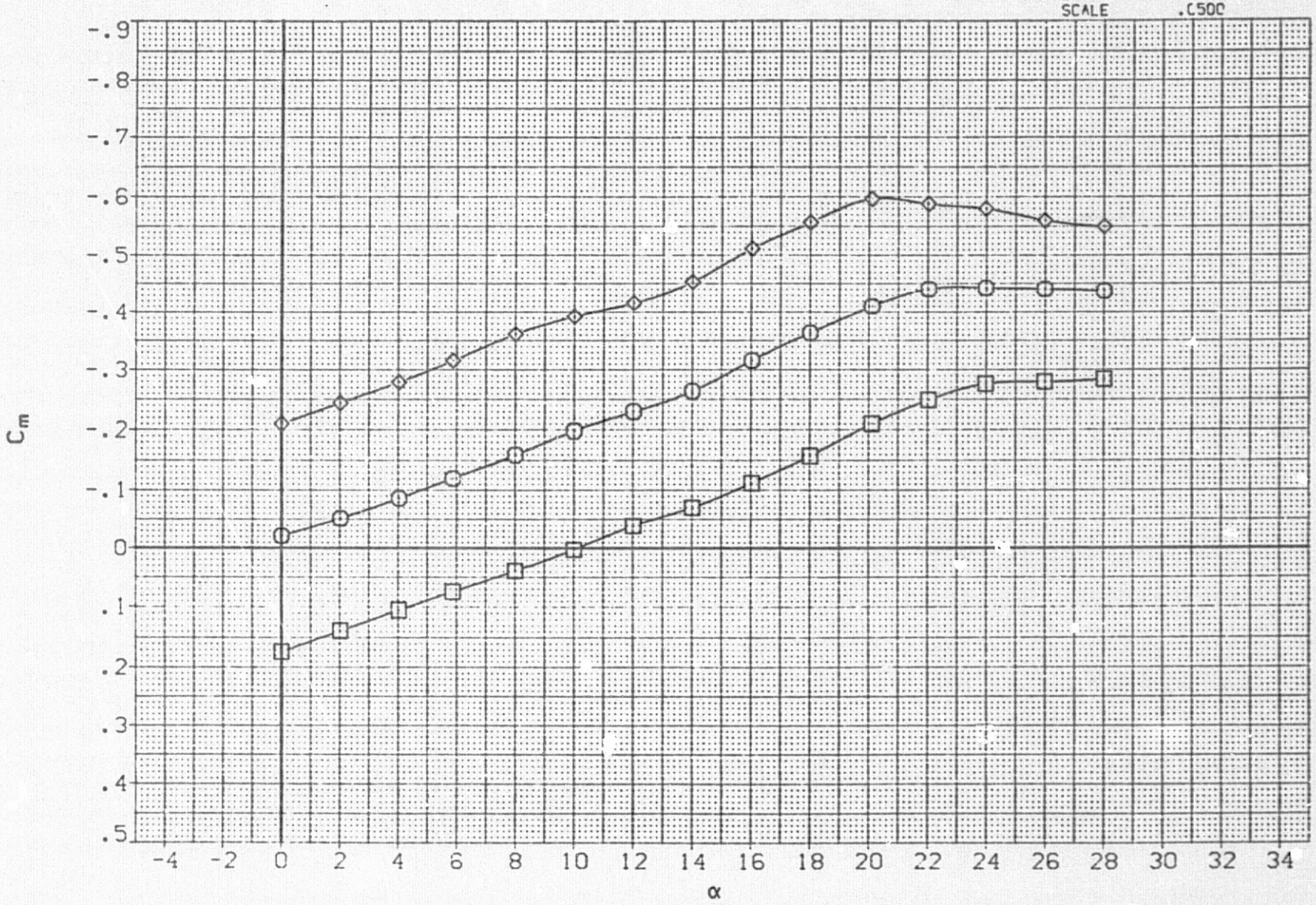

FIG 13 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1GC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH036)	○	W2B1V1GC2	.000	.067	.000
(RFH039)	□	W2B1V1GC2	-10.000	.067	.000
(RFH038)	◇	W2B1V1GC2	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

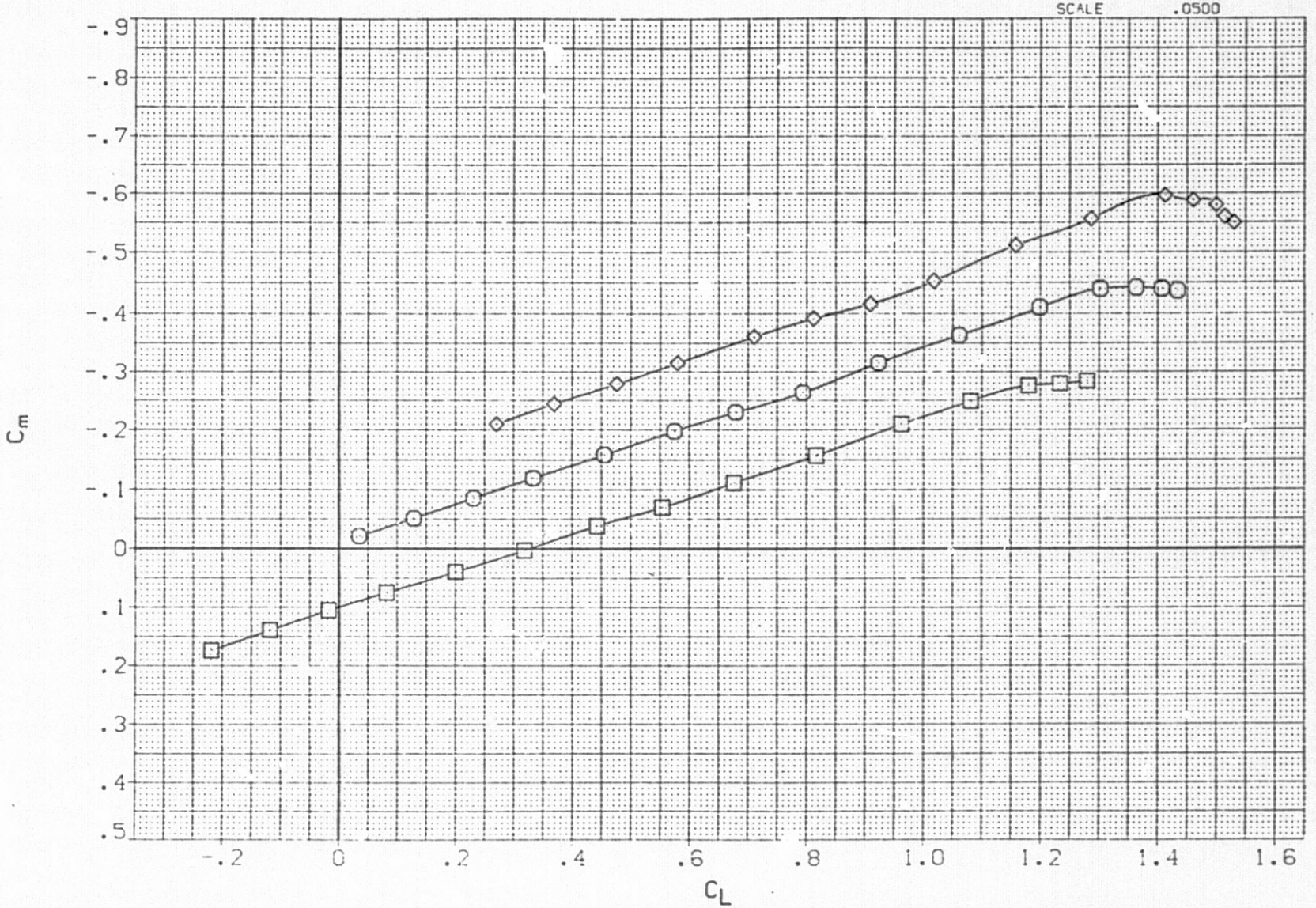

FIG 13 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1GC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH047)	○	W1B1V1GC2	.000	.067	.000
(RFH046)	□	W1B1V1GC2	-10.000	.067	.000
(RFH045)	◇	W1B1V1GC2	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

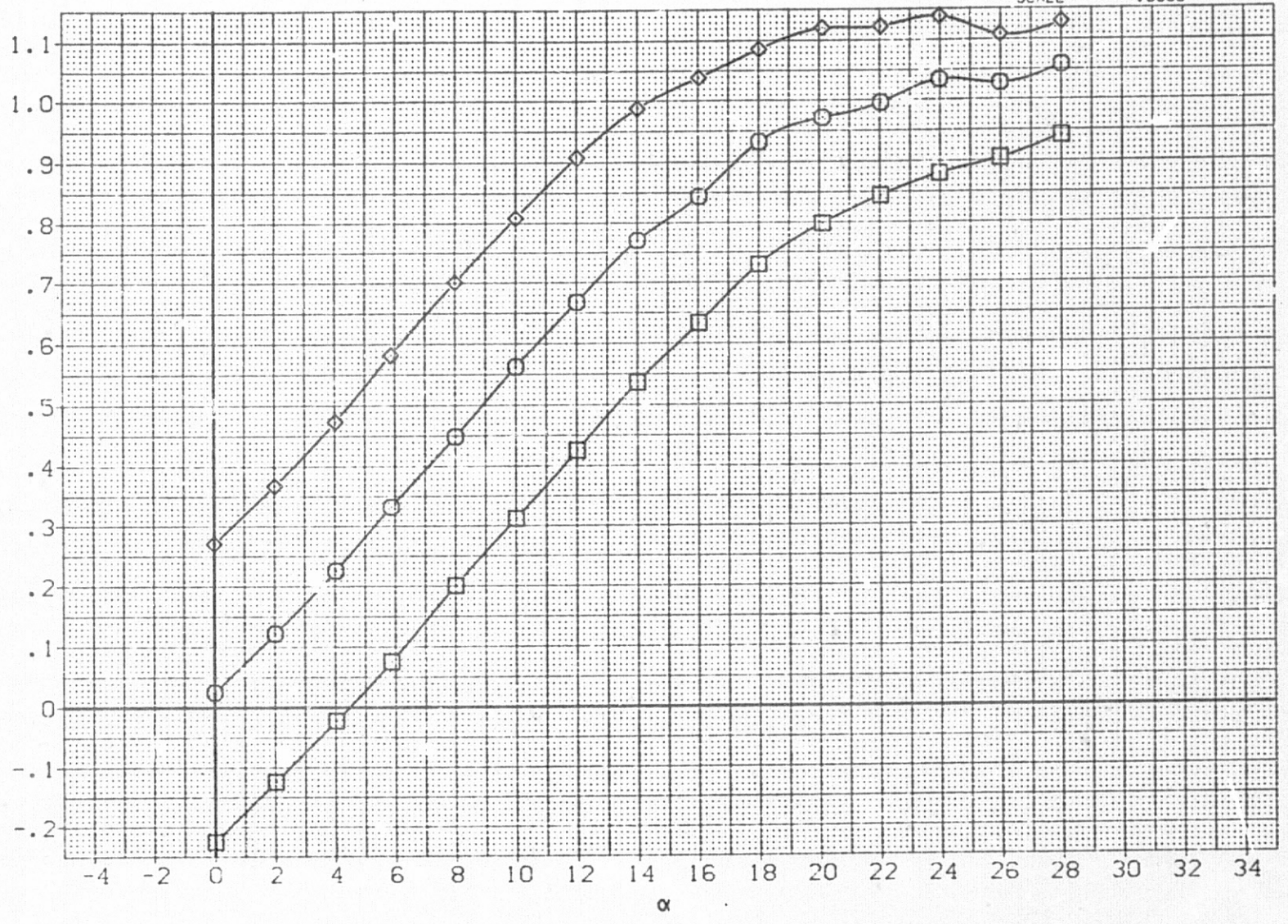

FIG 14 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W1B1V1GC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH047)	○	W1B1V1GC2	.000	.067	.000
(RFH046)	□	W1B1V1GC2	-10.000	.067	.000
(RFH045)	◇	W1B1V1GC2	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

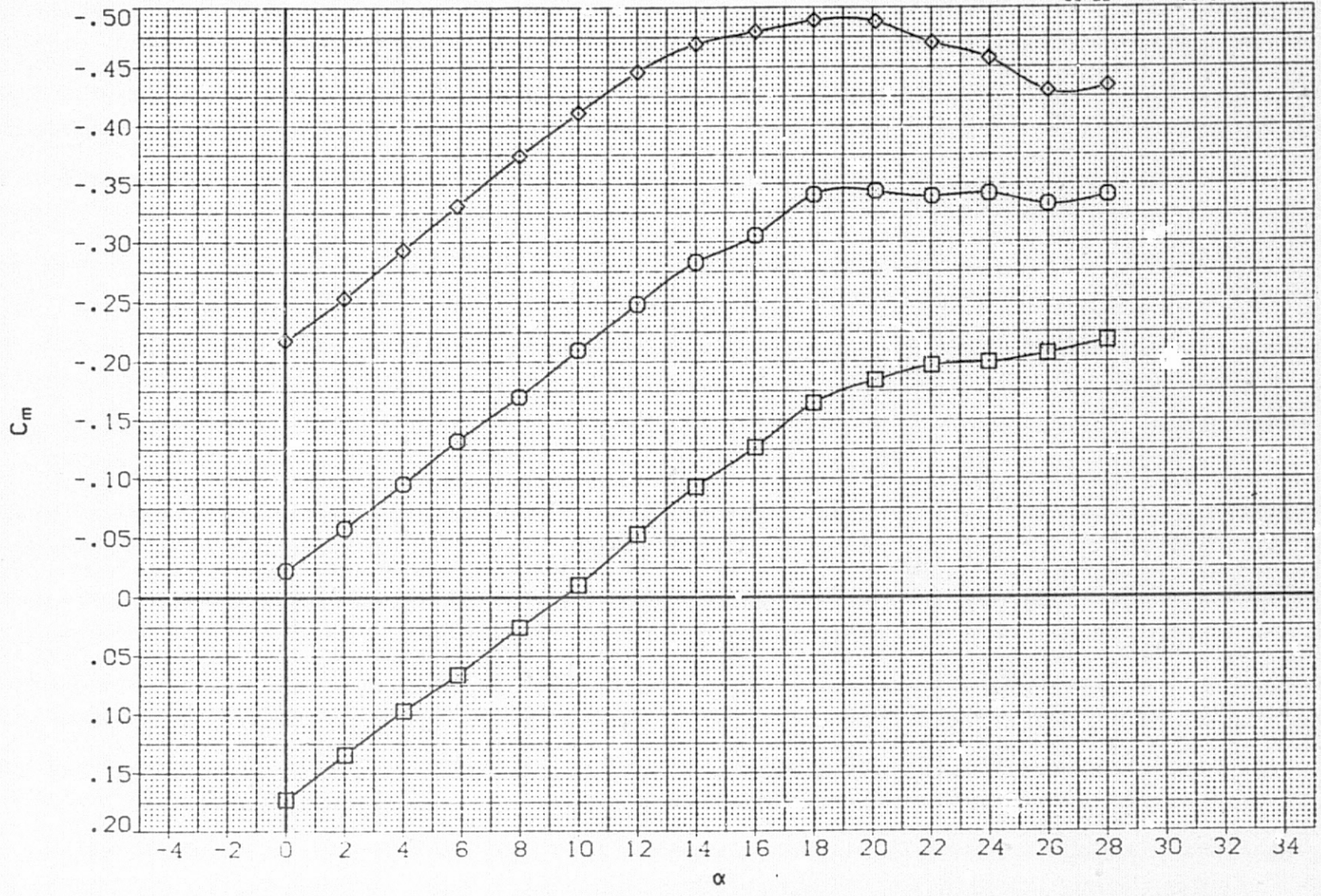

FIG 14 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W1B1V1GC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH047)	○	W1B1V1GC2
(RFH046)	□	W1B1V1GC2
(RFH045)	◇	W1B1V1GC2

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

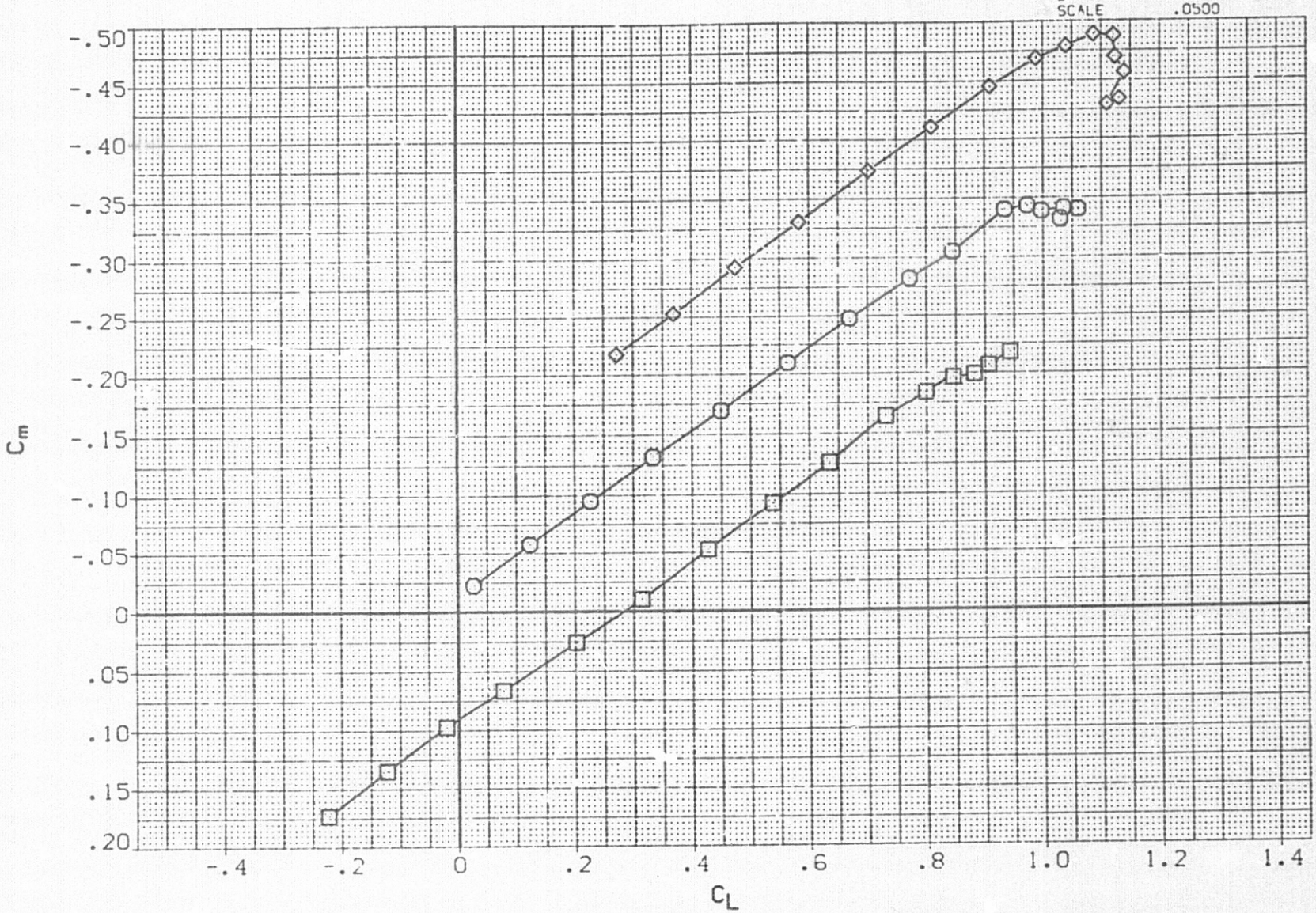

FIG 14 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W1B1V1GC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH026)	○	W2B1V1SC1	.000	.067	.000
(RFH029)	□	W2B1V1SC1	-10.000	.067	.000
(RFH028)	◇	W2B1V1SC1	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

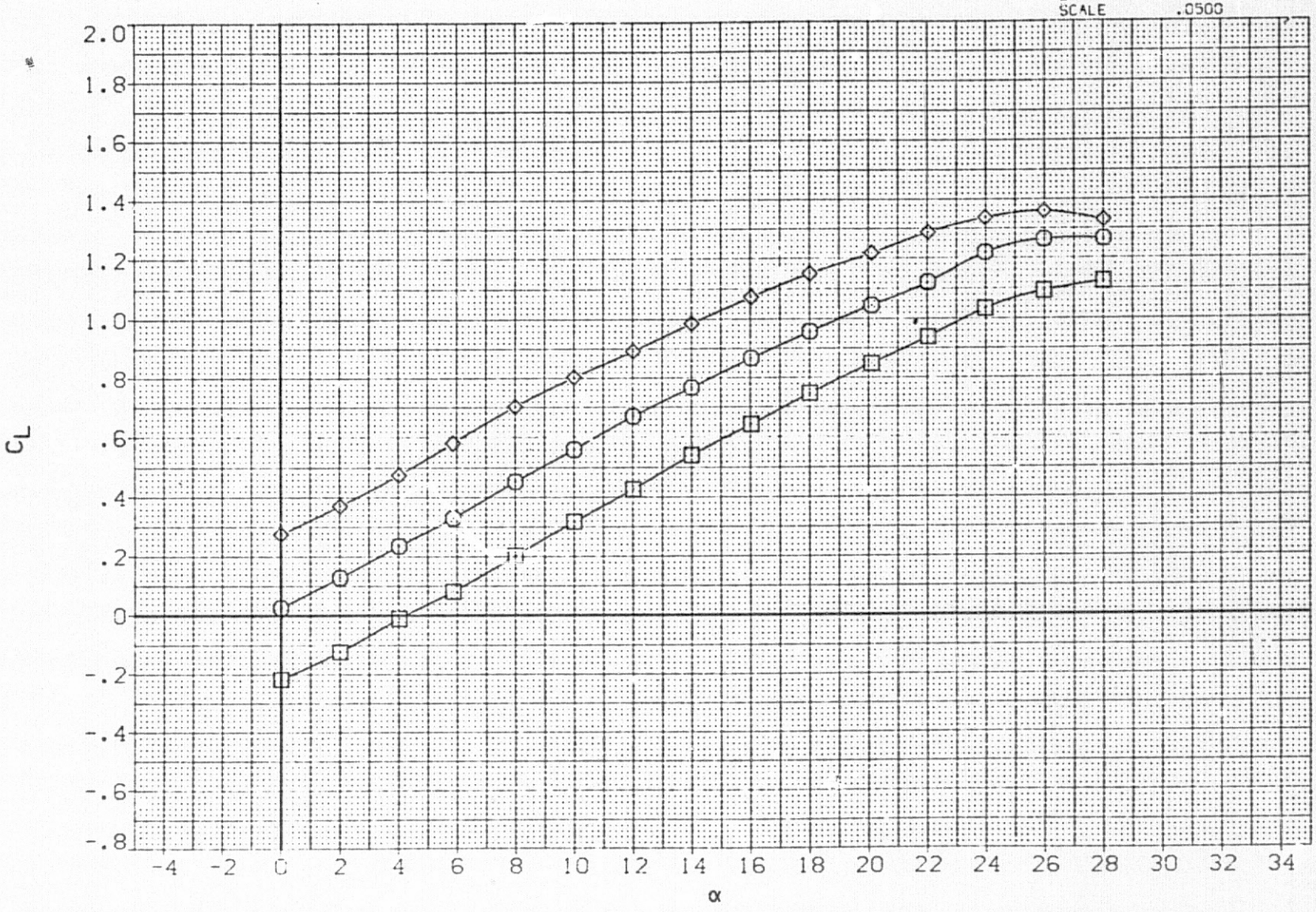

FIG 15 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH026)	○	W2B1V1SC1
(RFH029)	□	W2B1V1SC1
(RFH028)	◇	W2B1V1SC1

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

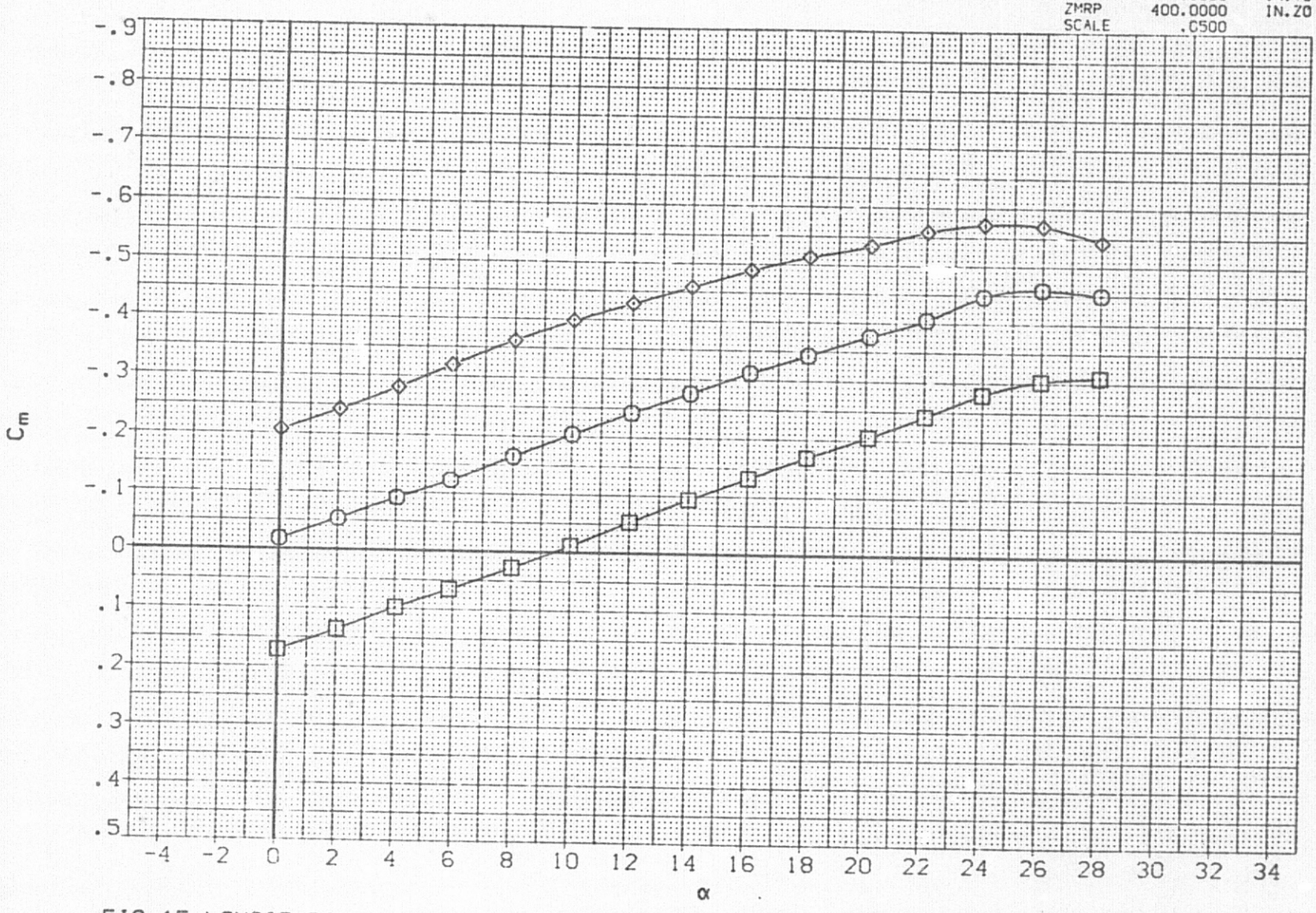

FIG 15 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH026)	○	W2B1V1SC1	.000	.067	.000
(RFH029)	□	W2B1V1SC1	-10.000	.067	.000
(RFH028)	◇	W2B1V1SC1	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

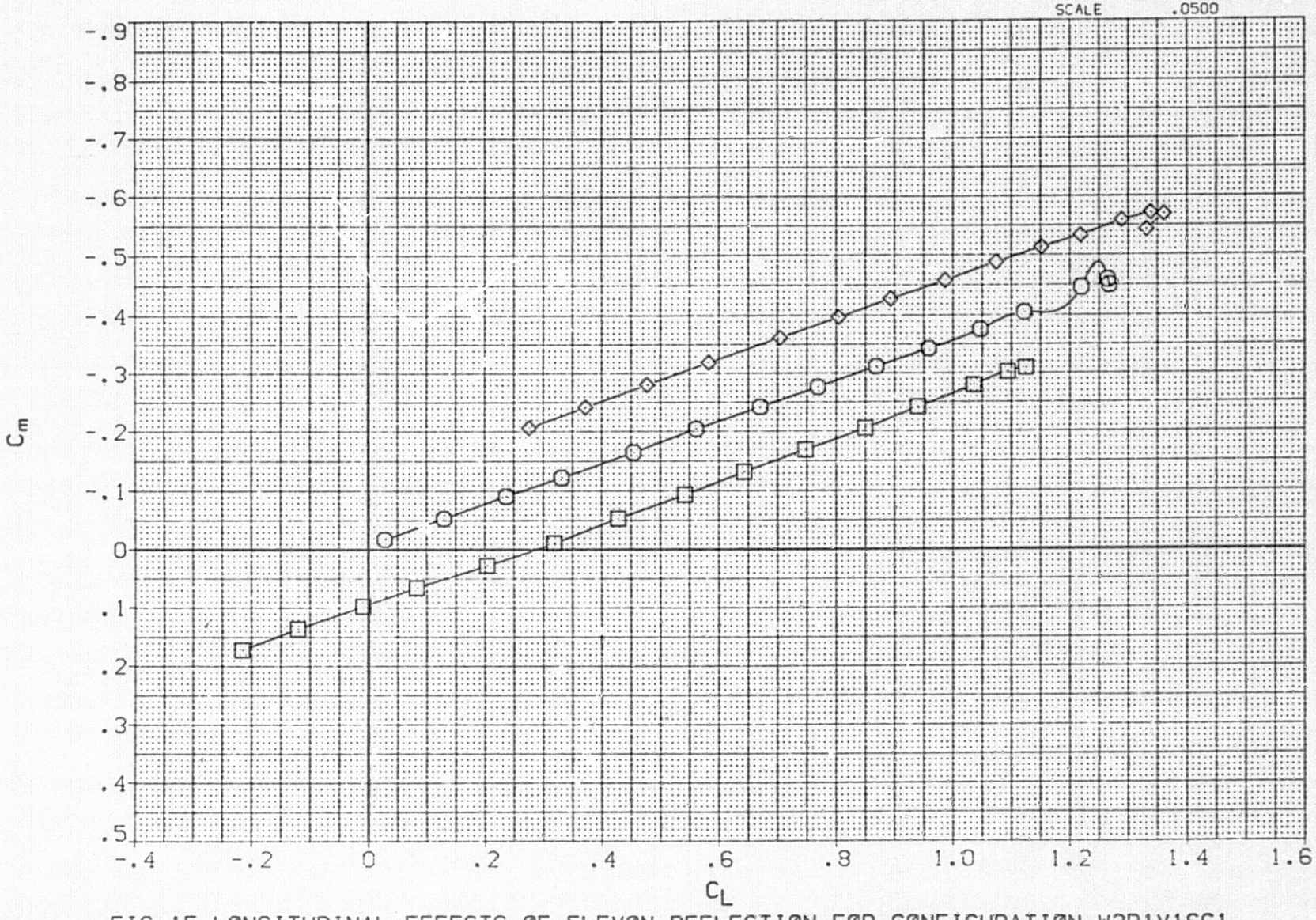

FIG 15 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH030)	◇	W2B1V1SC2
(RFH064)	○	W2B1V1SC2
(RFH063)	□	W2B1V1SC2

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

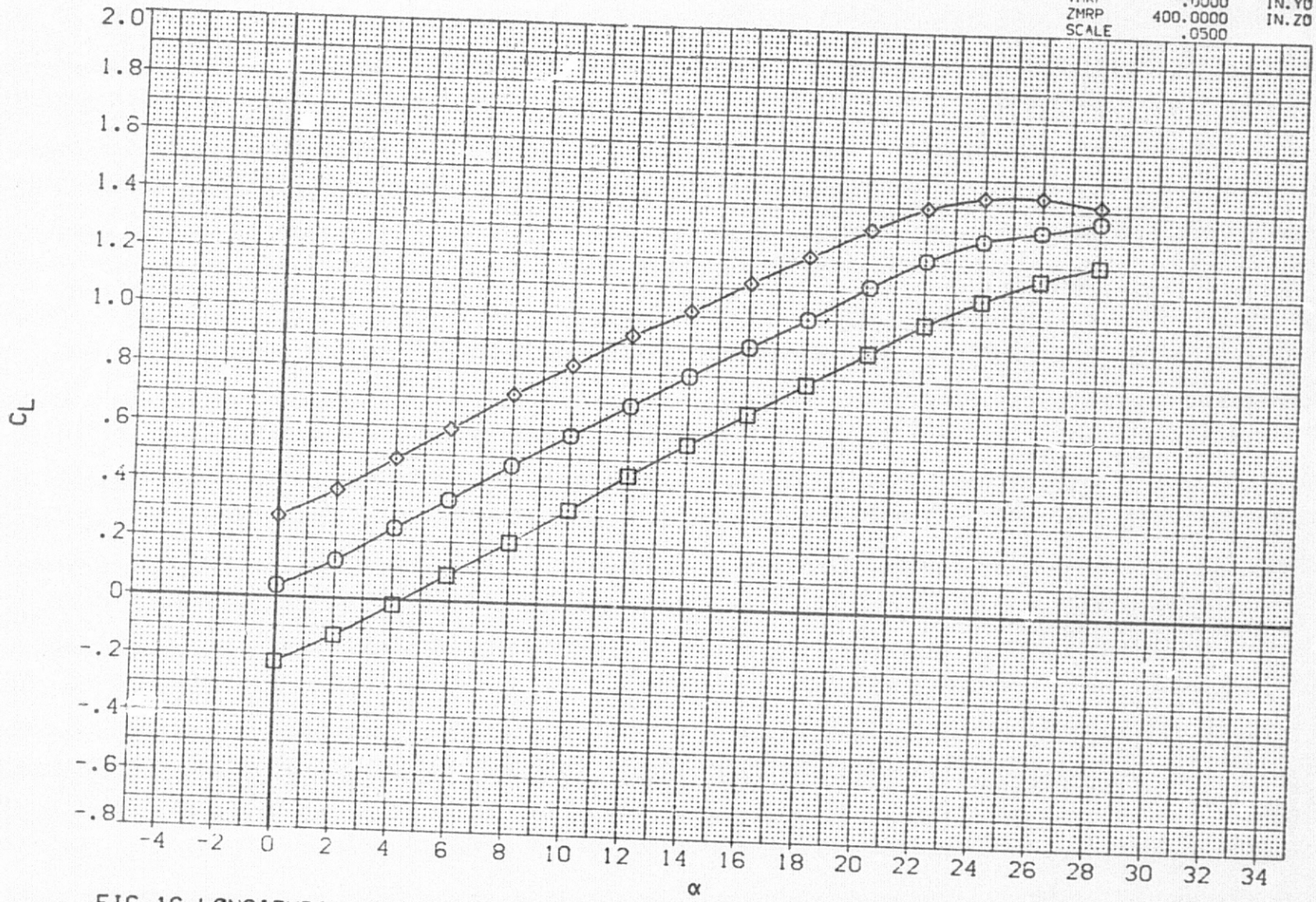

FIG 16 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH030)	○	W2B1V1SC2	.000	.067	.000
(RFH064)	□	W2B1V1SC2	-10.000	.067	.000
(RFH063)	◇	W2B1V1SC2	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

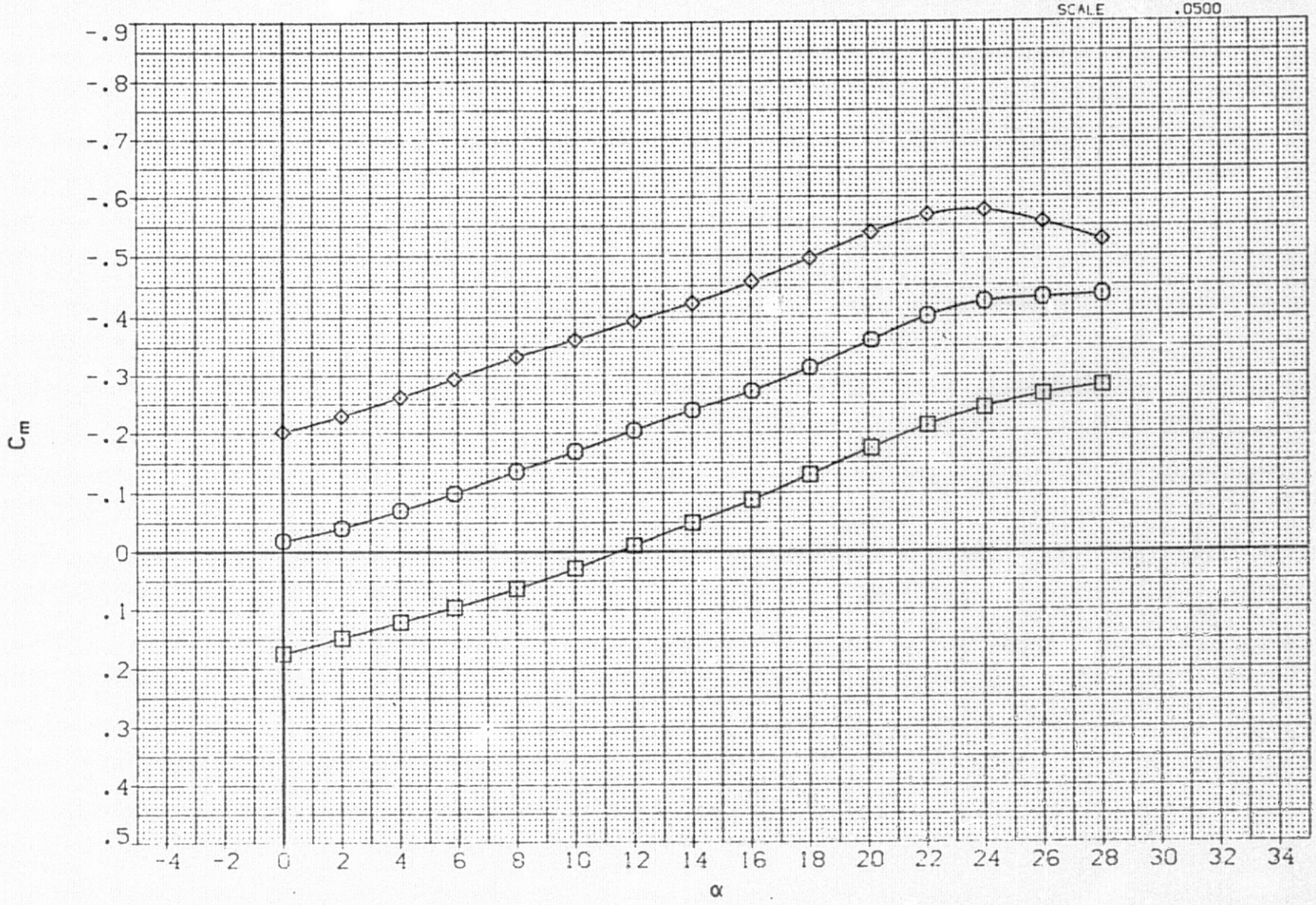

FIG 16 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH030)	○	W2B1V1SC2
(RFH064)	□	W2B1V1SC2
(RFH063)	◇	W2B1V1SC2

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

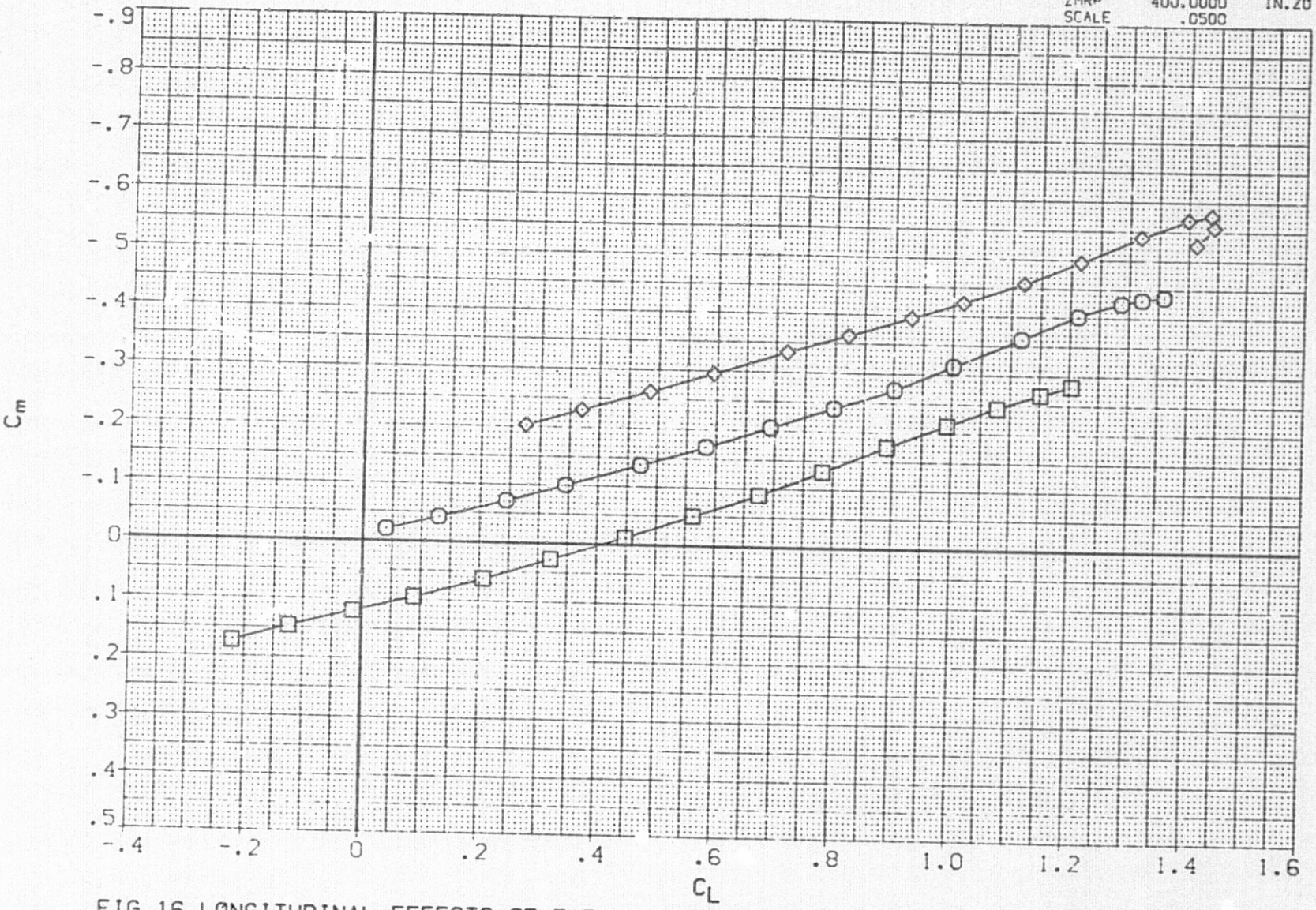

FIG 16 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC2

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH033)	◇	W2B1V1SC3	.000	.067	.000
(RFH056)	□	W2B1V1SC3	-10.000	.067	
(RFH055)	○	W2B1V1SC3	10.000	.067	

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.500	

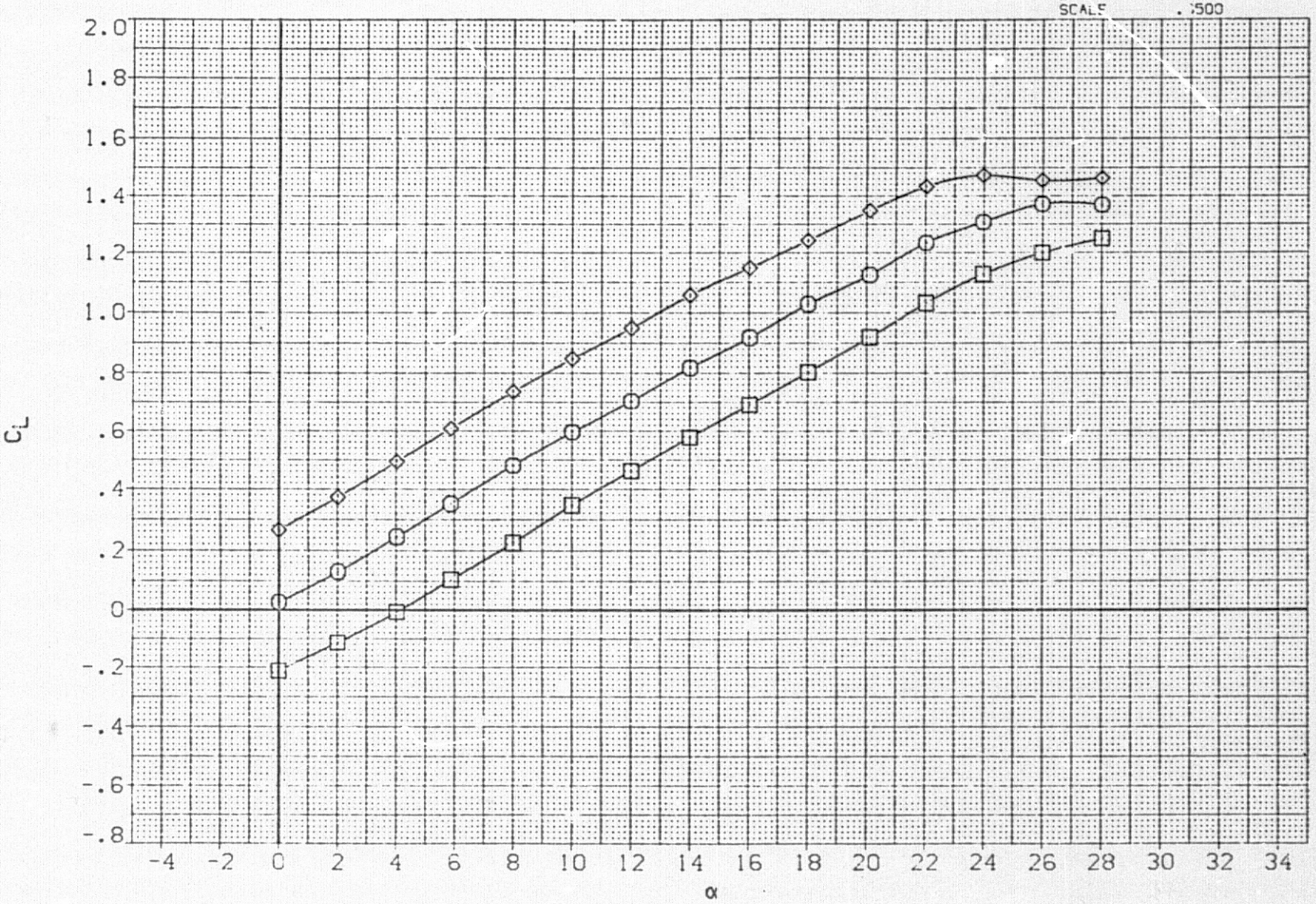

FIG 17 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC3

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH033)	○	W2B1V1SC3
(RFH056)	□	W2B1V1SC3
(RFH055)	◇	W2B1V1SC3

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	
10.000	.067	

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

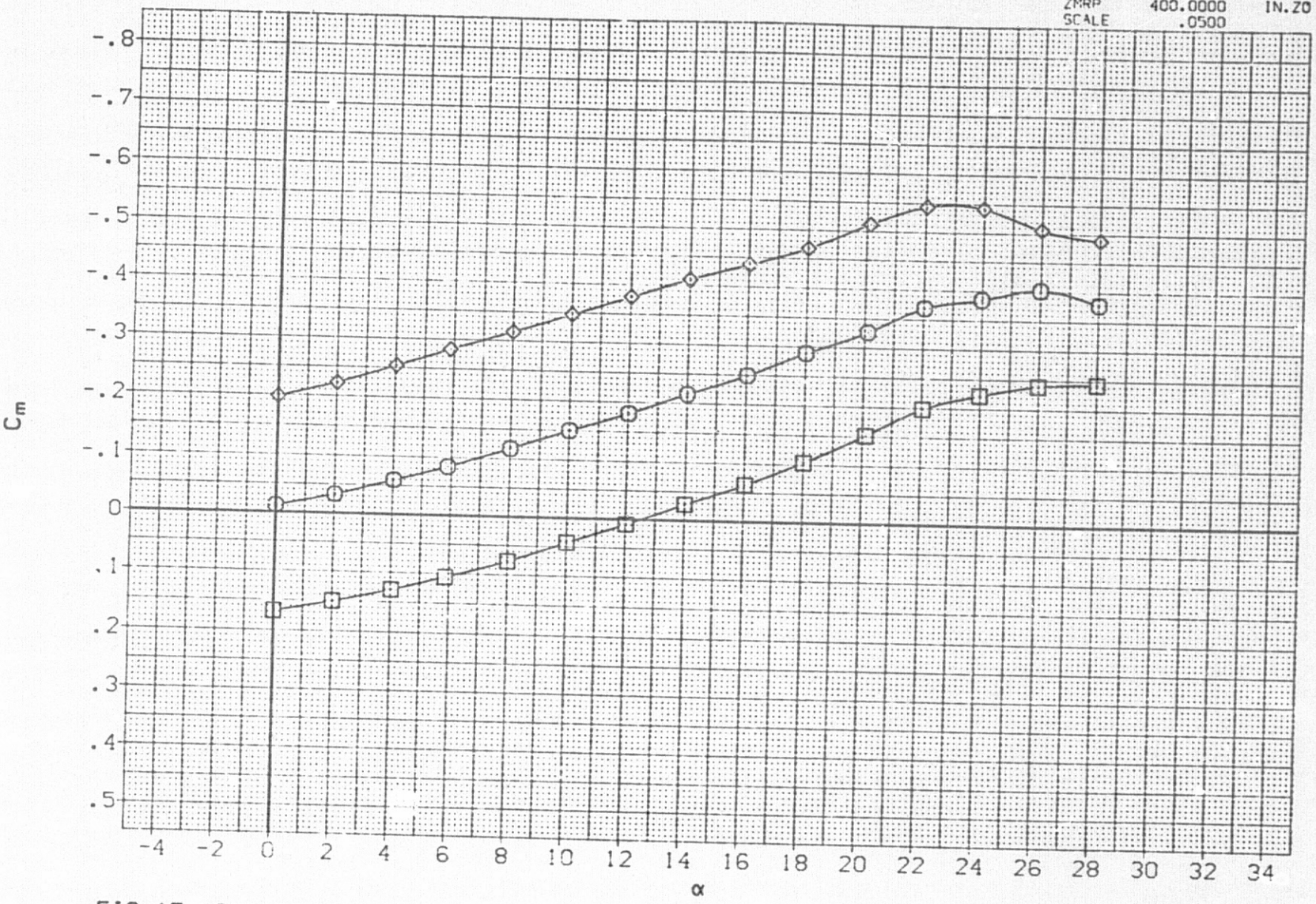

FIG 17 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC3

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH033)	○	W2B1V1SC3	.000	.067	.000
(RFH056)	□	W2B1V1SC3	-10.000	.067	
(RFH055)	◇	W2B1V1SC3	10.000	.067	

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

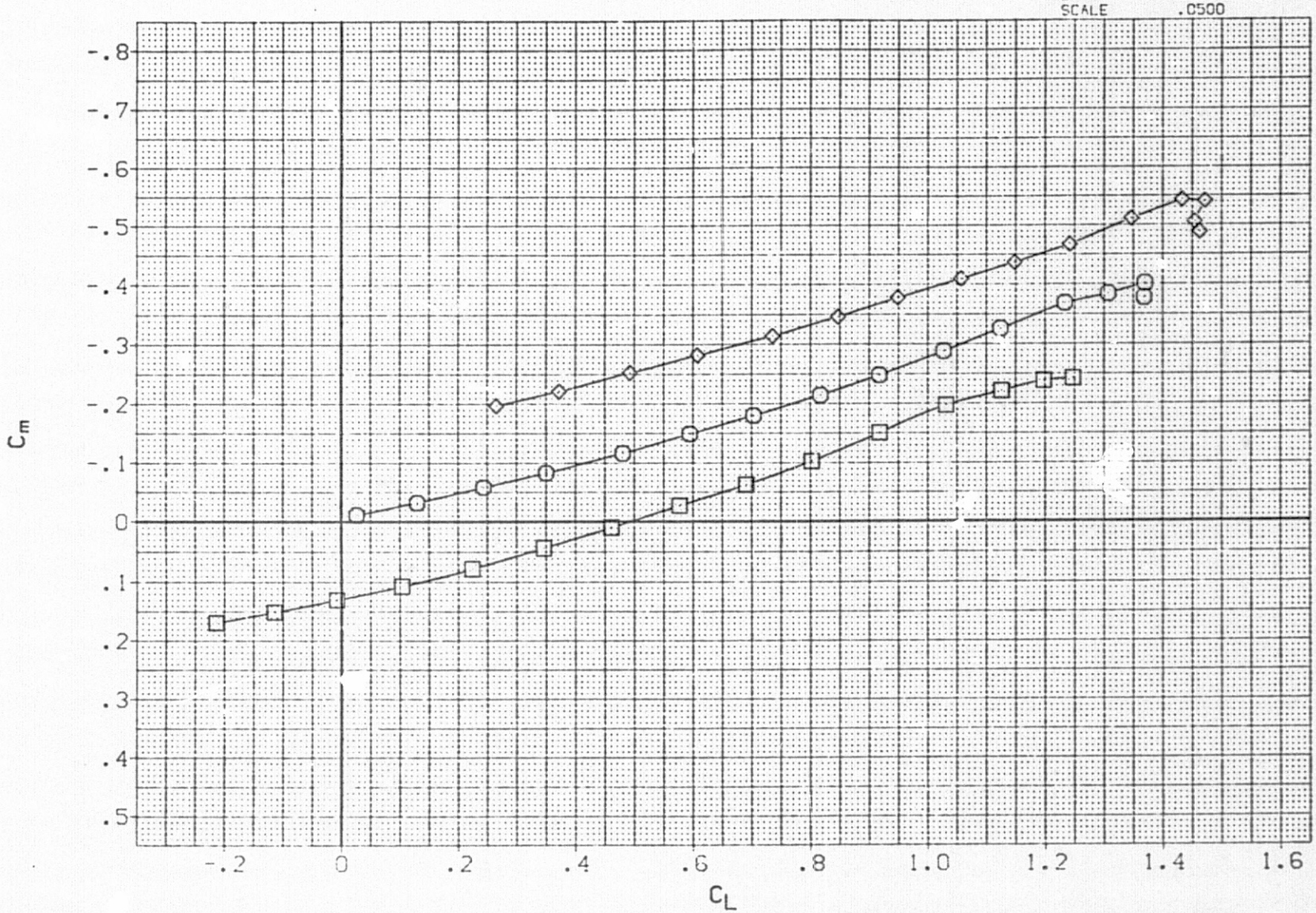

FIG 17 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION FOR CONFIGURATION W2B1V1SC3

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH005)	○	W2B1V1H1F(1.0)
(RFH007)	□	W2B1V1H1F(1.0)
(RFH008)	◇	W2B1V1H1F(1.0)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

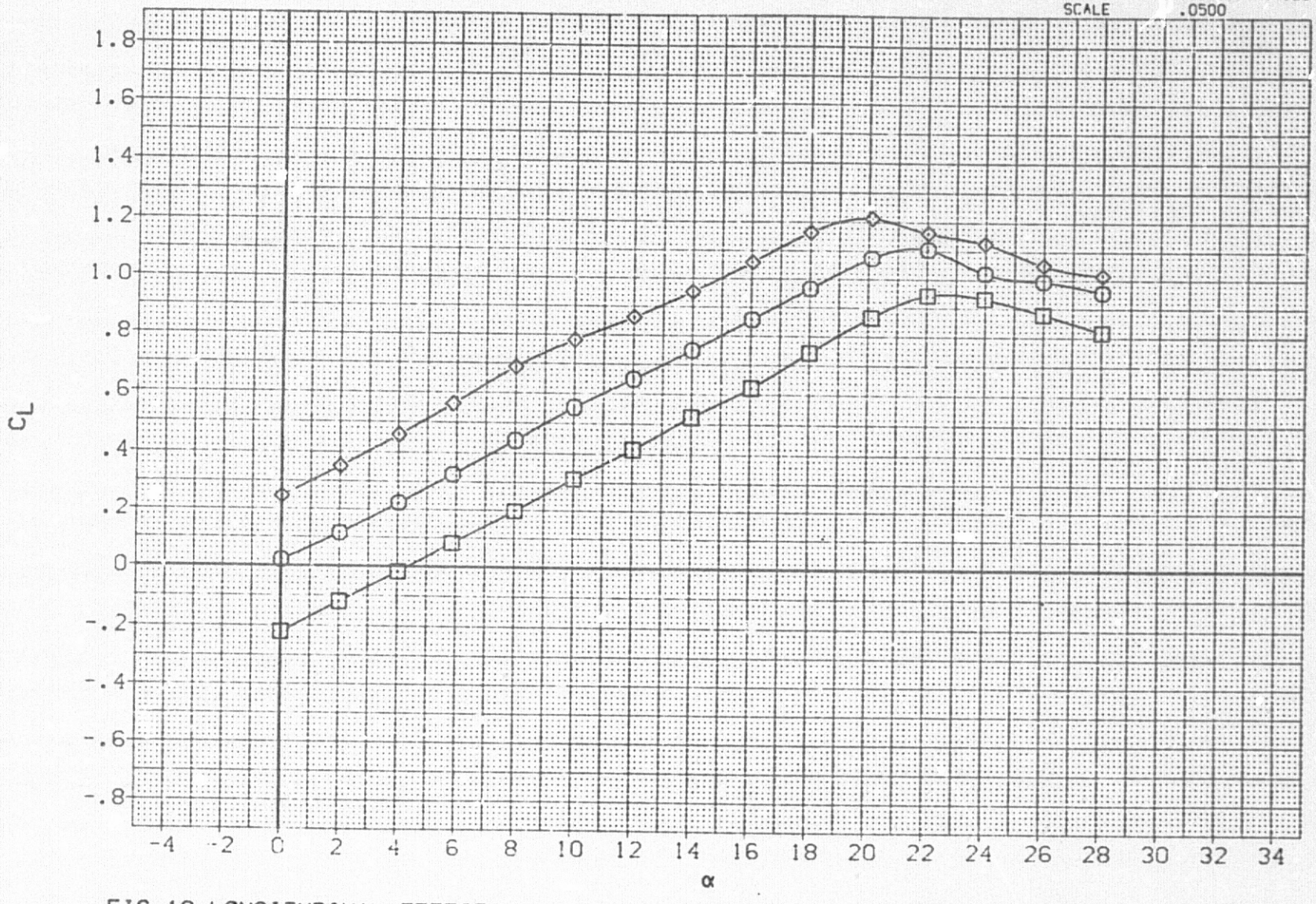

FIG 18 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH005)	○	W2B1V1H1F(1.0)	.000	.067	.000
(RFH007)	□	W2B1V1H1F(1.0)	-10.000	.067	.000
(RFH008)	◇	W2B1V1H1F(1.0)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

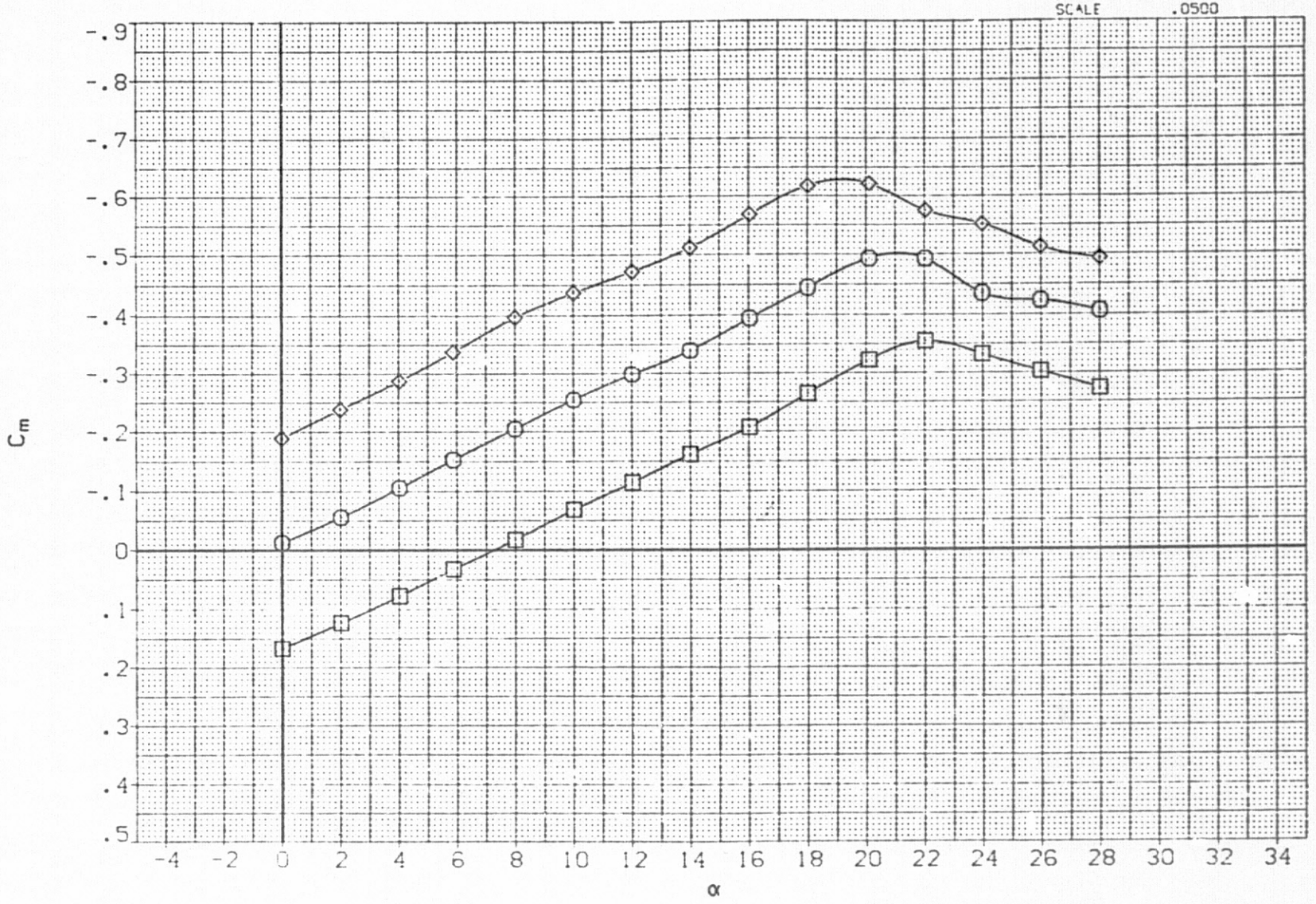

FIG 18 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH005)	○	W2B1V1H1F(.0)	.000	.067	.000
(RFH007)	□	W2B1V1H1F(1.0)	-10.000	.067	.000
(RFH008)	◇	W2B1V1H1F(1.0)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

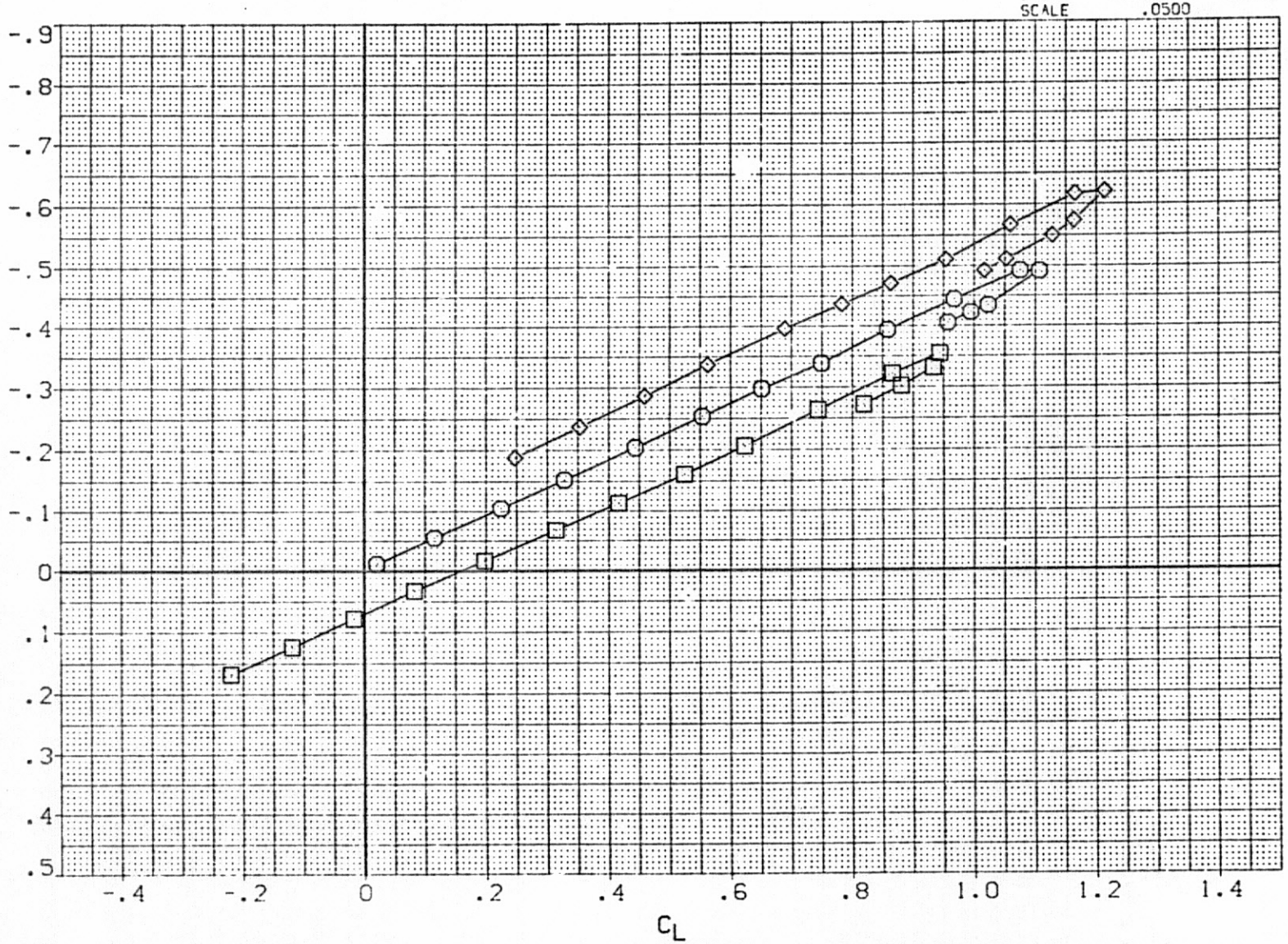

FIG 18 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

C.2

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH011)	○	W2B1V1H1F(1.+10)
(RFH010)	□	W2B1V1H1F(1.+10)
(RFH009)	◇	W2B1V1H1F(1.+10)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

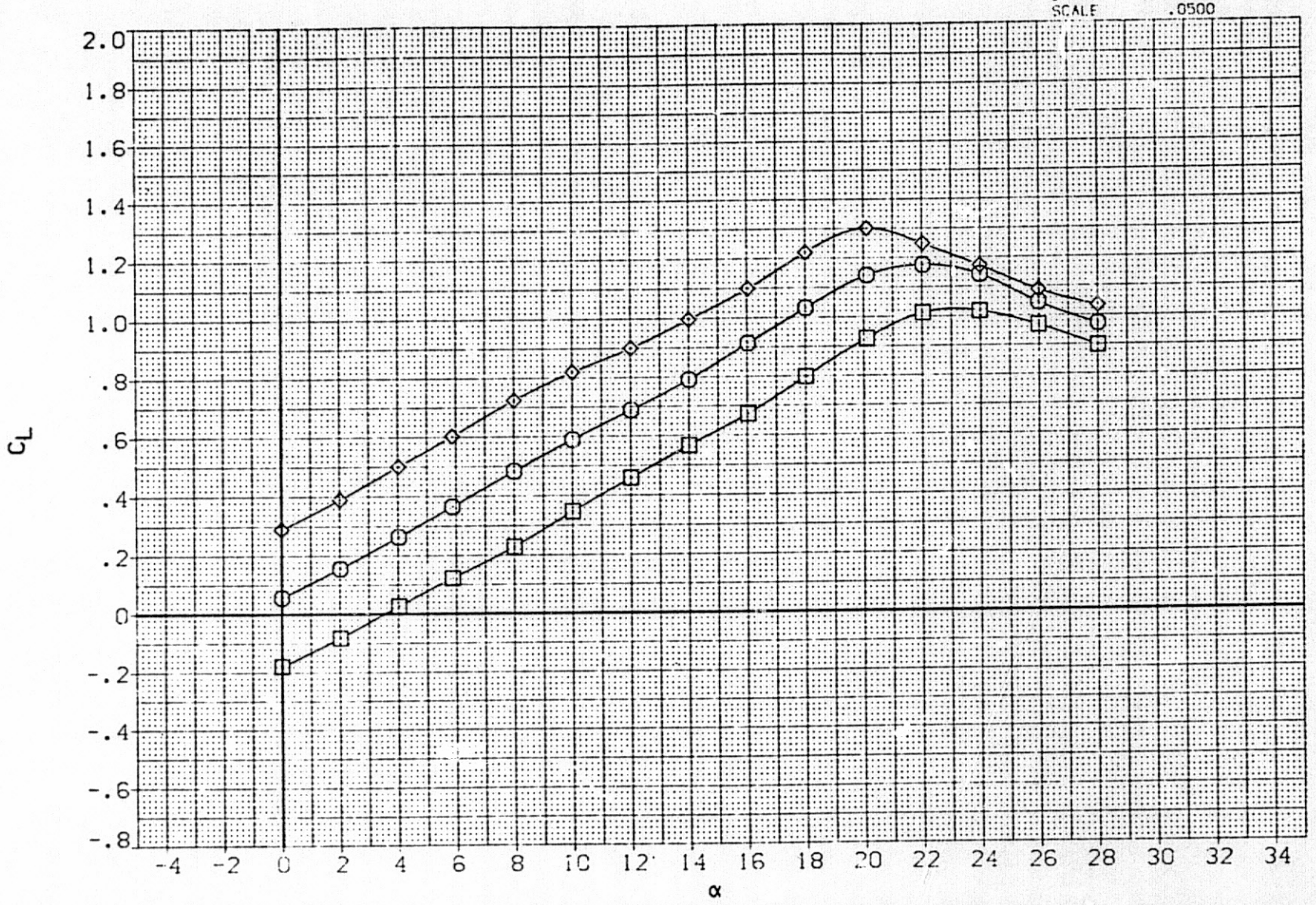

FIG 19 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT +10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH011)	□	W2B1V1H1F(1.+10)	.000	.067	.000
(RFH010)	○	W2B1V1H1F(1.+10)	-10.000	.067	.000
(RFH009)	◇	W2B1V1H1F(1.+10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

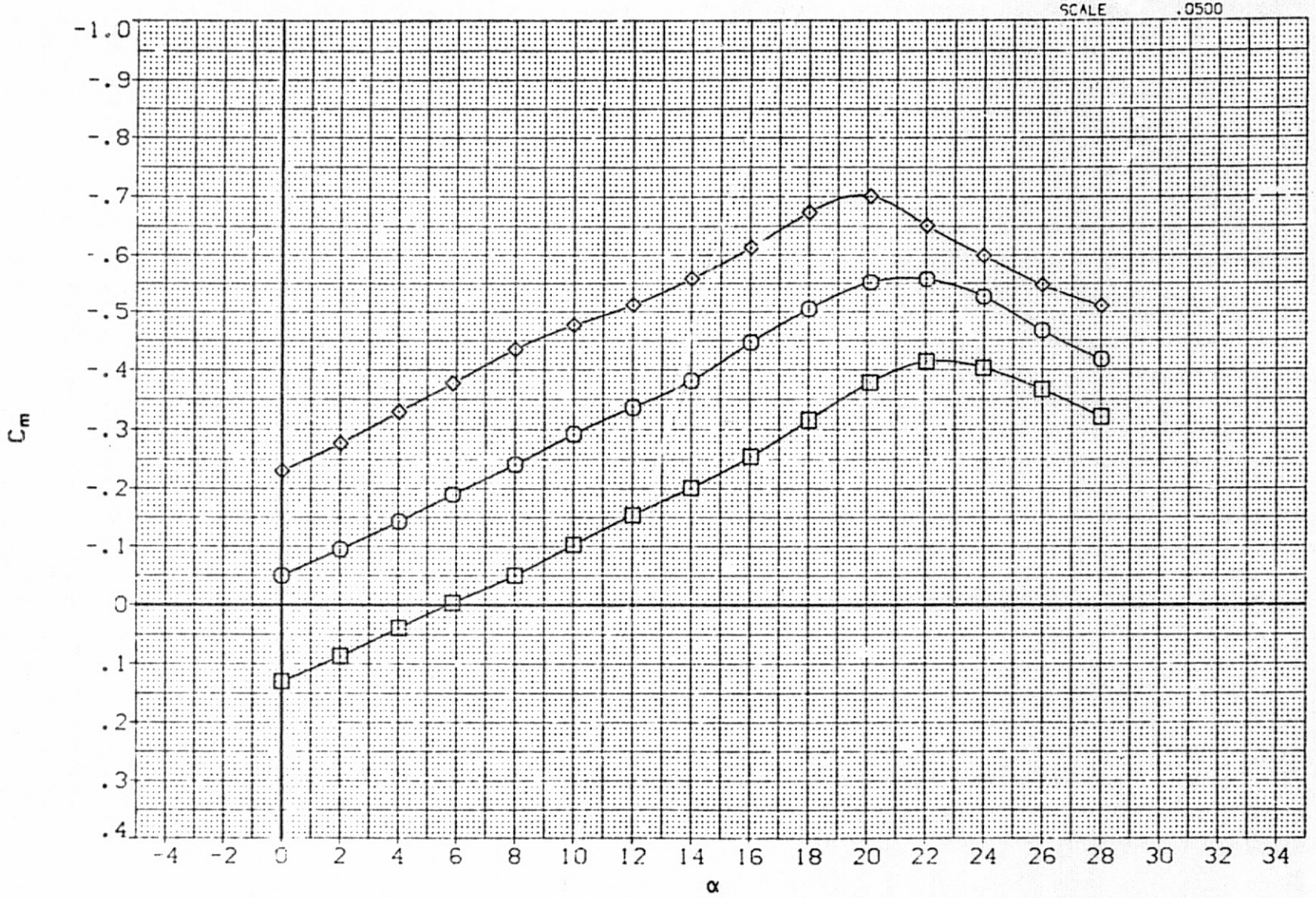

FIG 19 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT +10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH011)	○	W2B1V1H1F(1.+10)	.000	.067	.000
(RFH010)	□	W2B1V1H1F(1.+10)	-10.000	.067	.000
(RFH009)	◇	W2B1V1H1F(1.+10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

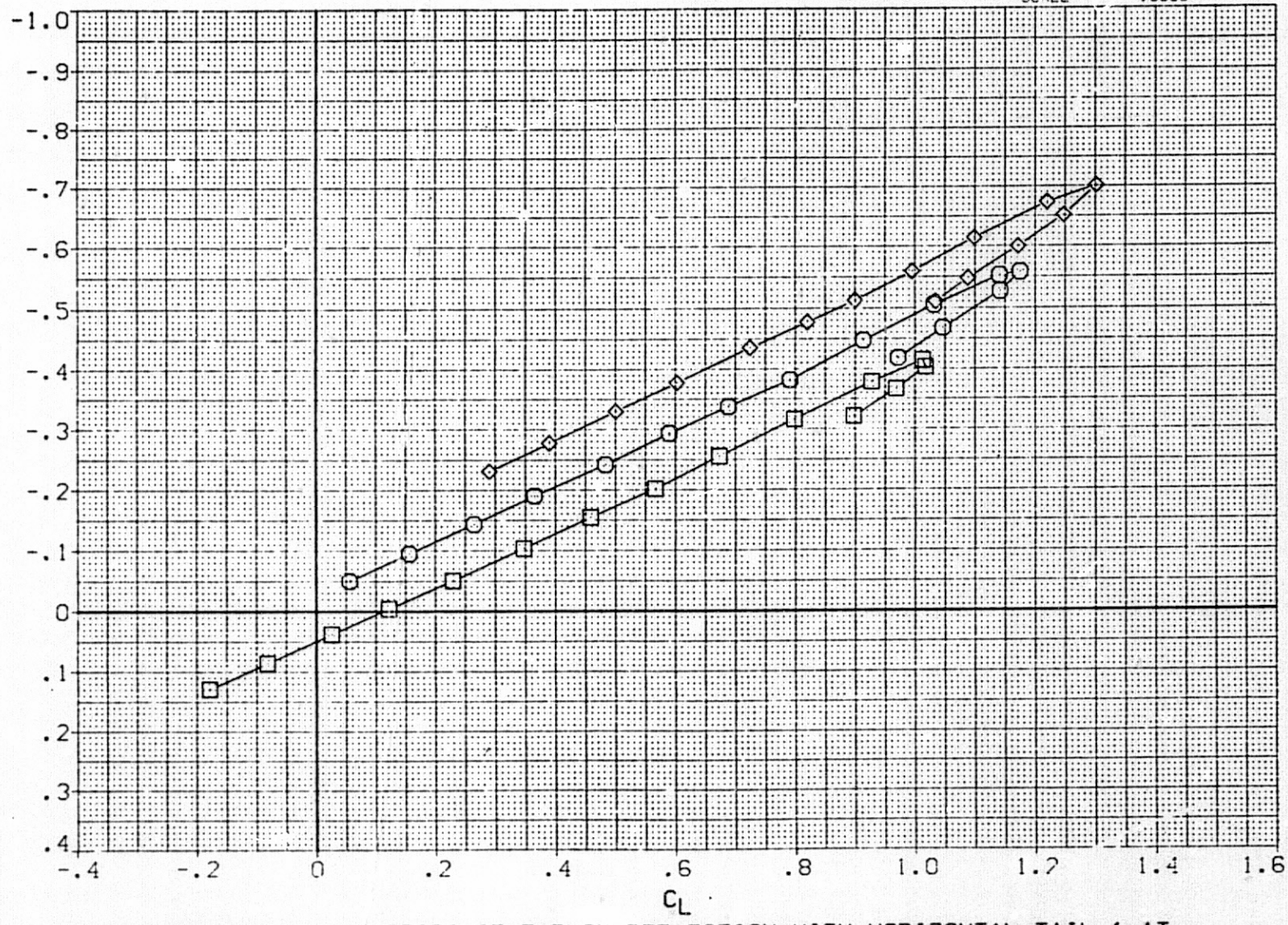

FIG 19 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT +10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH012)	□	W2B1V1H1F(1.-10)
(RFH013)	○	W2B1V1H1F(1.-10)
(RFH014)	◇	W2B1V1H1F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

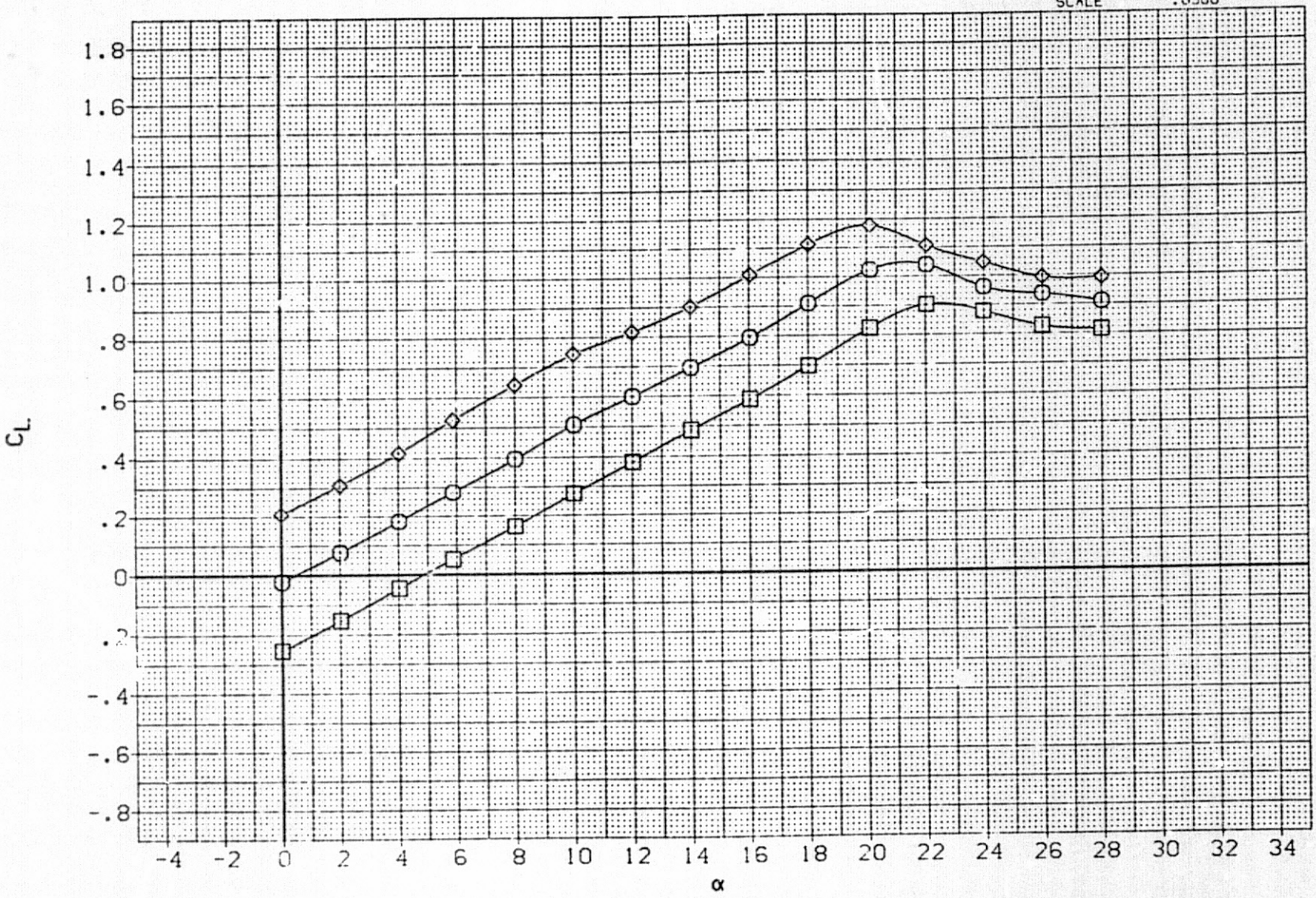

FIG 20 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT -10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH012)	□	W2B1V1H1F(1.-10)	.000	.067	.000
(RFH013)	◻	W2B1V1H1F(1.-10)	-10.000	.067	.000
(RFH014)	◇	W2B1V1H1F(1.-10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

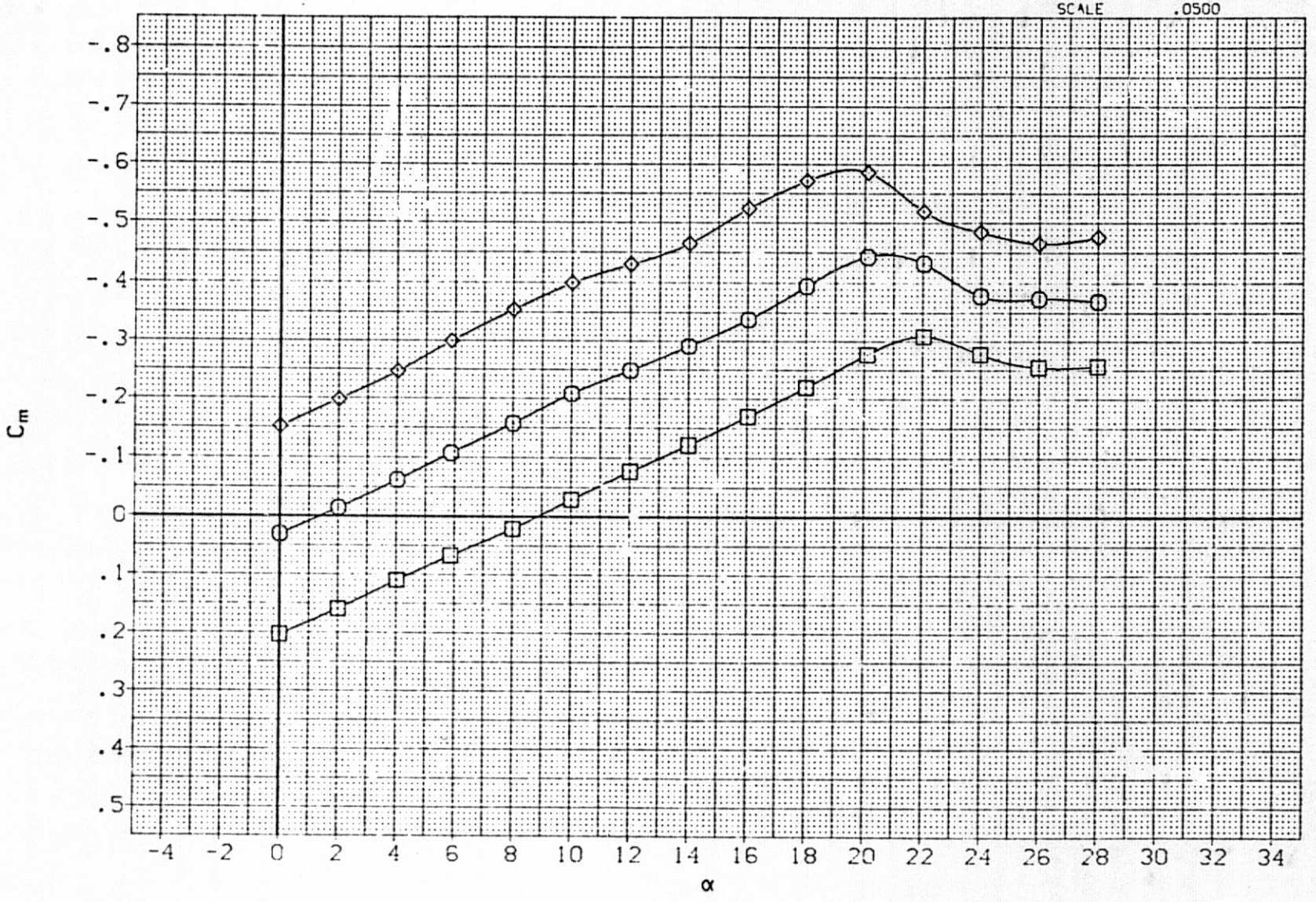

FIG 20 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT -10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH012)	○	W2B1V1H1F(1.-10)	.000	.067	.000
(RFH013)	□	W2B1V1H1F(1.-10)	-10.000	.067	.000
(RFH014)	◇	W2B1V1H1F(1.-10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

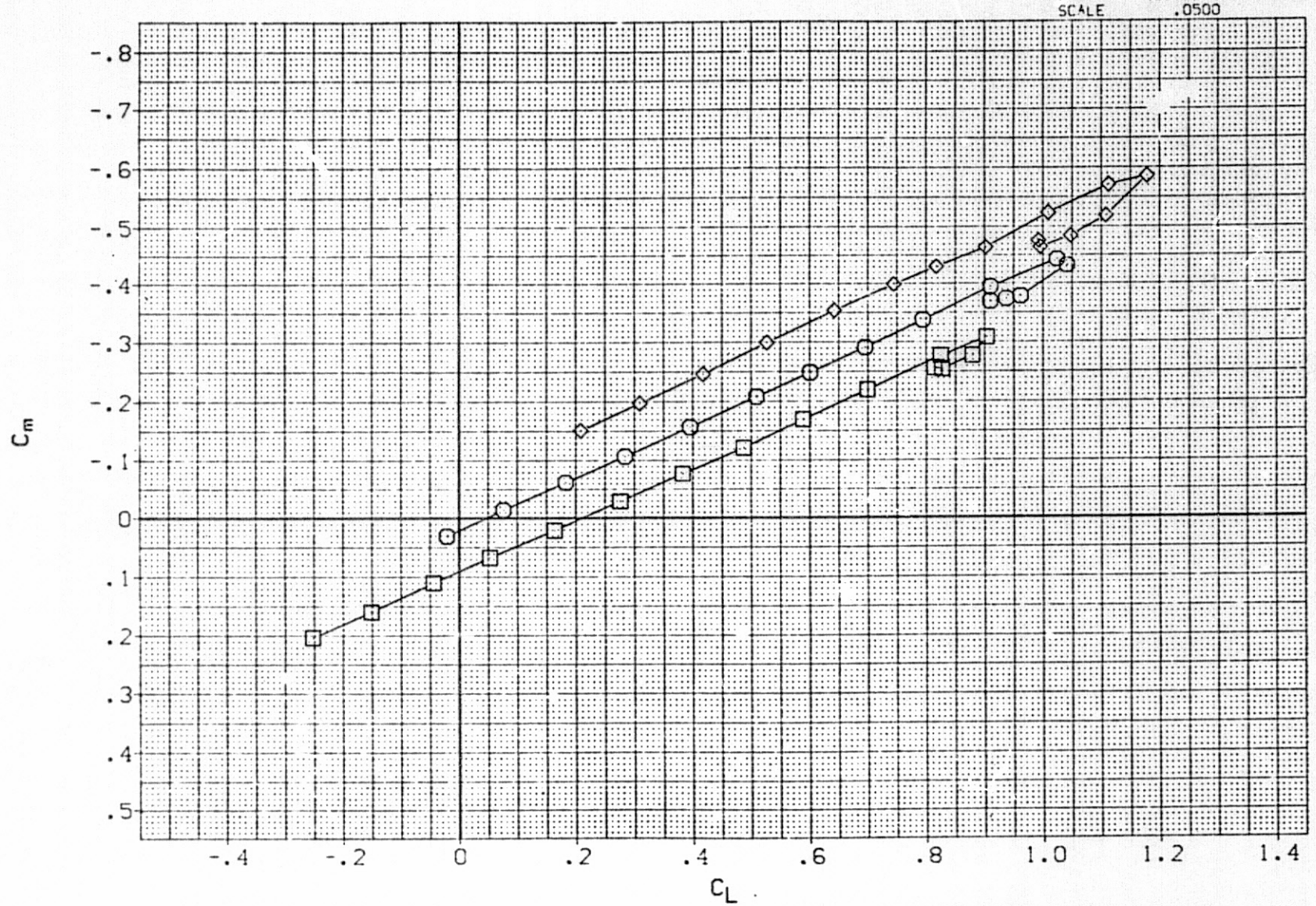

FIG 20 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 1 AT -10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH017)	□	W2B1V1H2F(1.0)
(RFH016)	○	W2B1V1H2F(1.0)
(RFH015)	◇	W2B1V1H2F(1.0)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

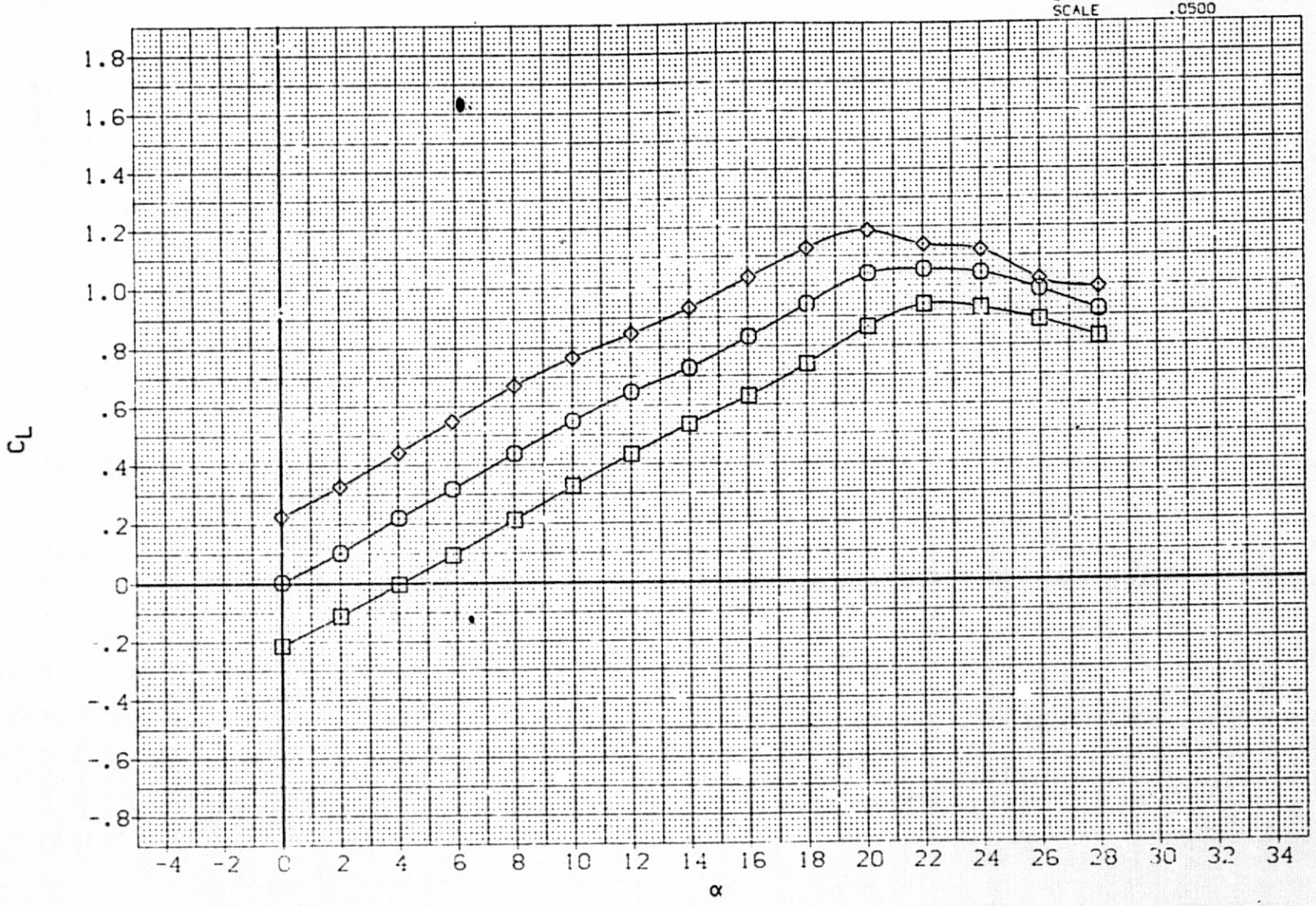

FIG 21 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH017)	◇	W2B1V1H2F(1.0)
(RFH016)	□	W2B1V1H2F(1.0)
(RFH015)	◇	W291V1H2F(1.0)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

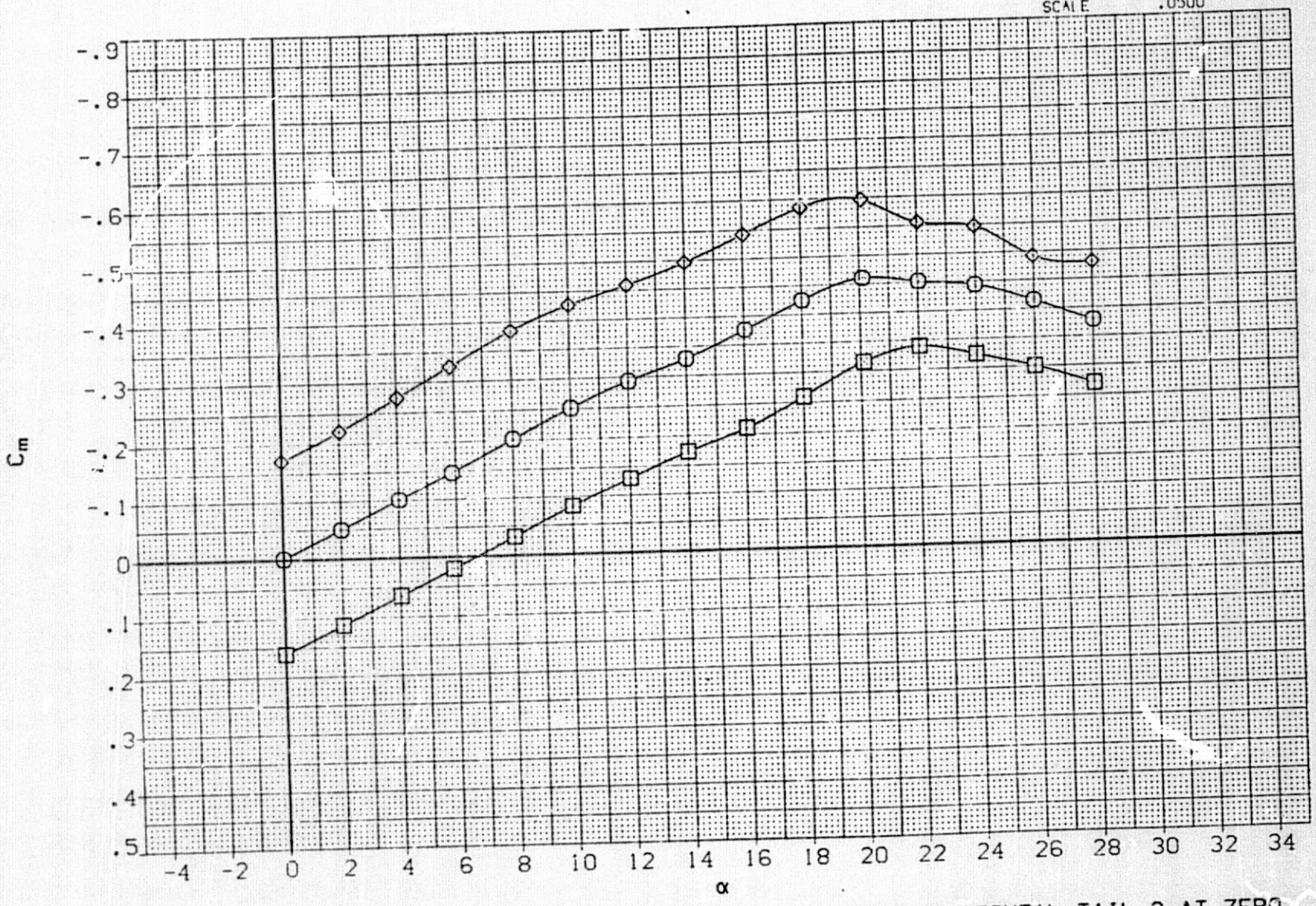

FIG 21 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH017)	○	W2B1V1H2F(1.0)
(RFH016)	□	W2B1V1H2F(1.0)
(RFH015)	◇	W2B1V1H2F(1.0)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

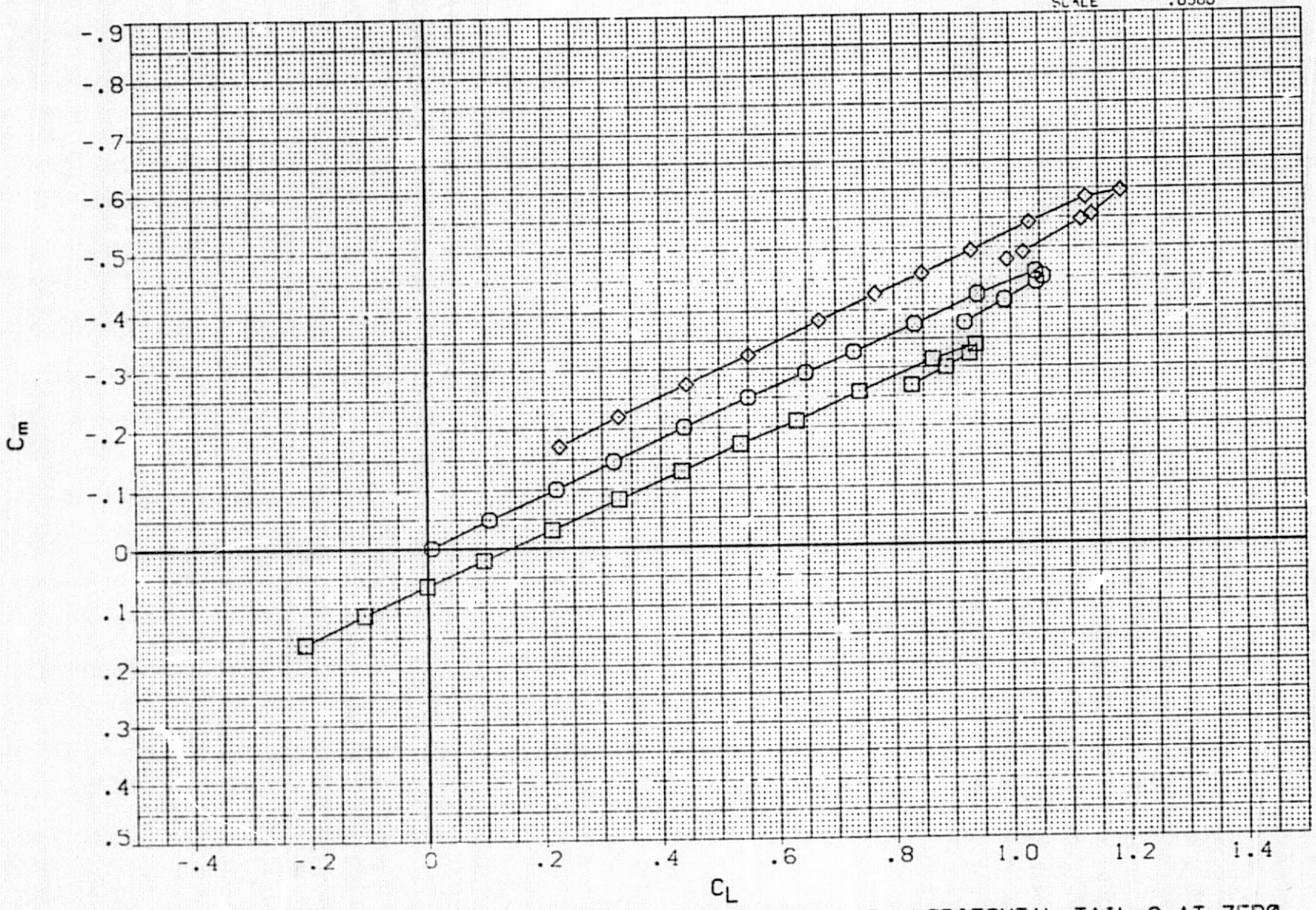

FIG 21 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH019)	□	W2B1V1H2F(1.+10)
(RFH020)	○	W2B1V1H2F(1.+10)
(RFH021)	◇	W2B1V1H2F(1.+10)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

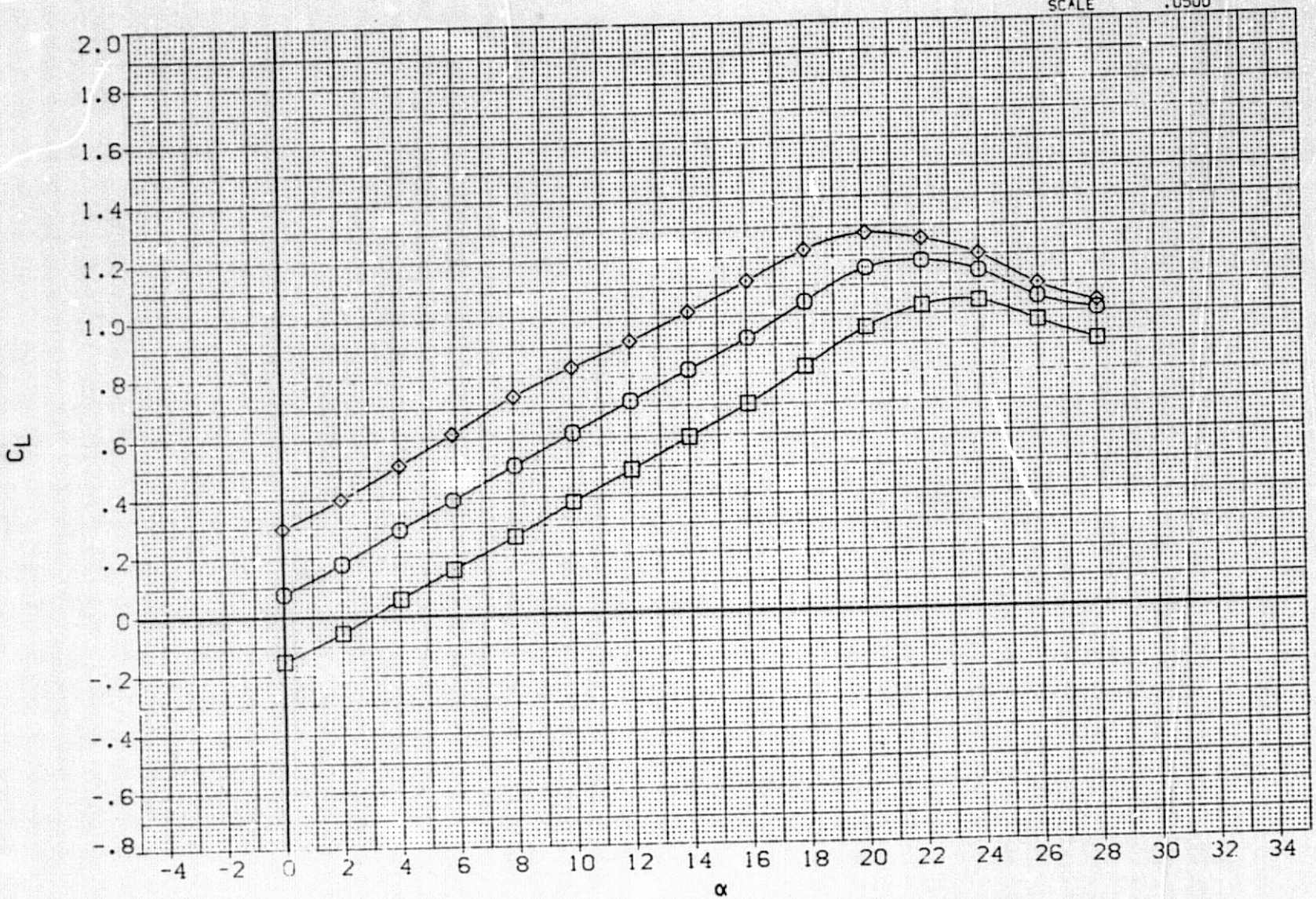

FIG 22 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT +10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH019)	○	W2B1V1H2F(1.+10)	.000	.067	.000
(RFH020)	□	W2B1V1H2F(1.+10)	-10.000	.067	.000
(RFH021)	◇	W2B1V1H2F(1.+10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

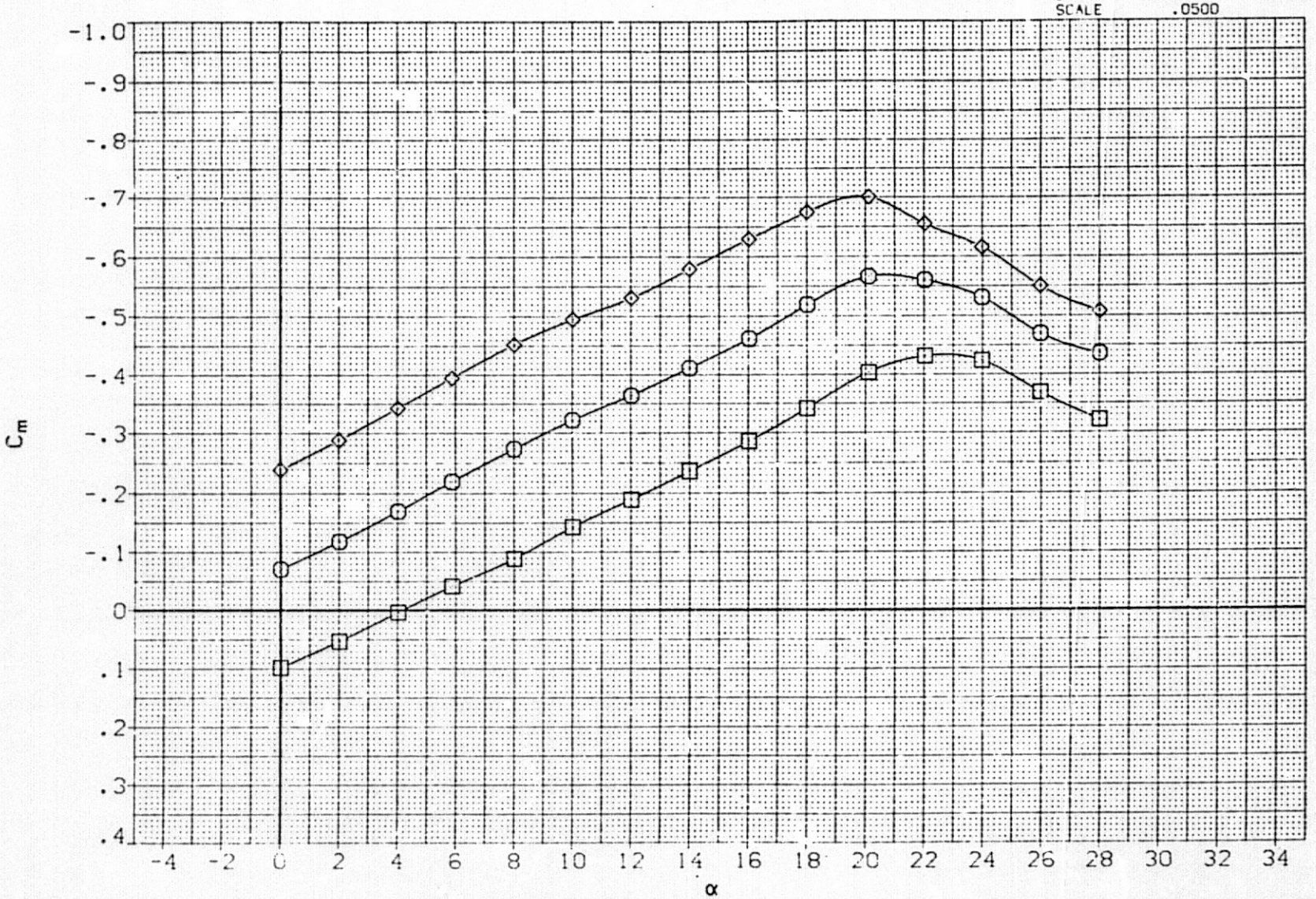

FIG 22 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT +10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH019)	○	W2B1V1H2F(1.+10)	.000	.067	.000
(RFH020)	□	W2B1V1H2F(1.+10)	-10.000	.067	.000
(RFH021)	◇	W2B1V1H2F(1.+10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

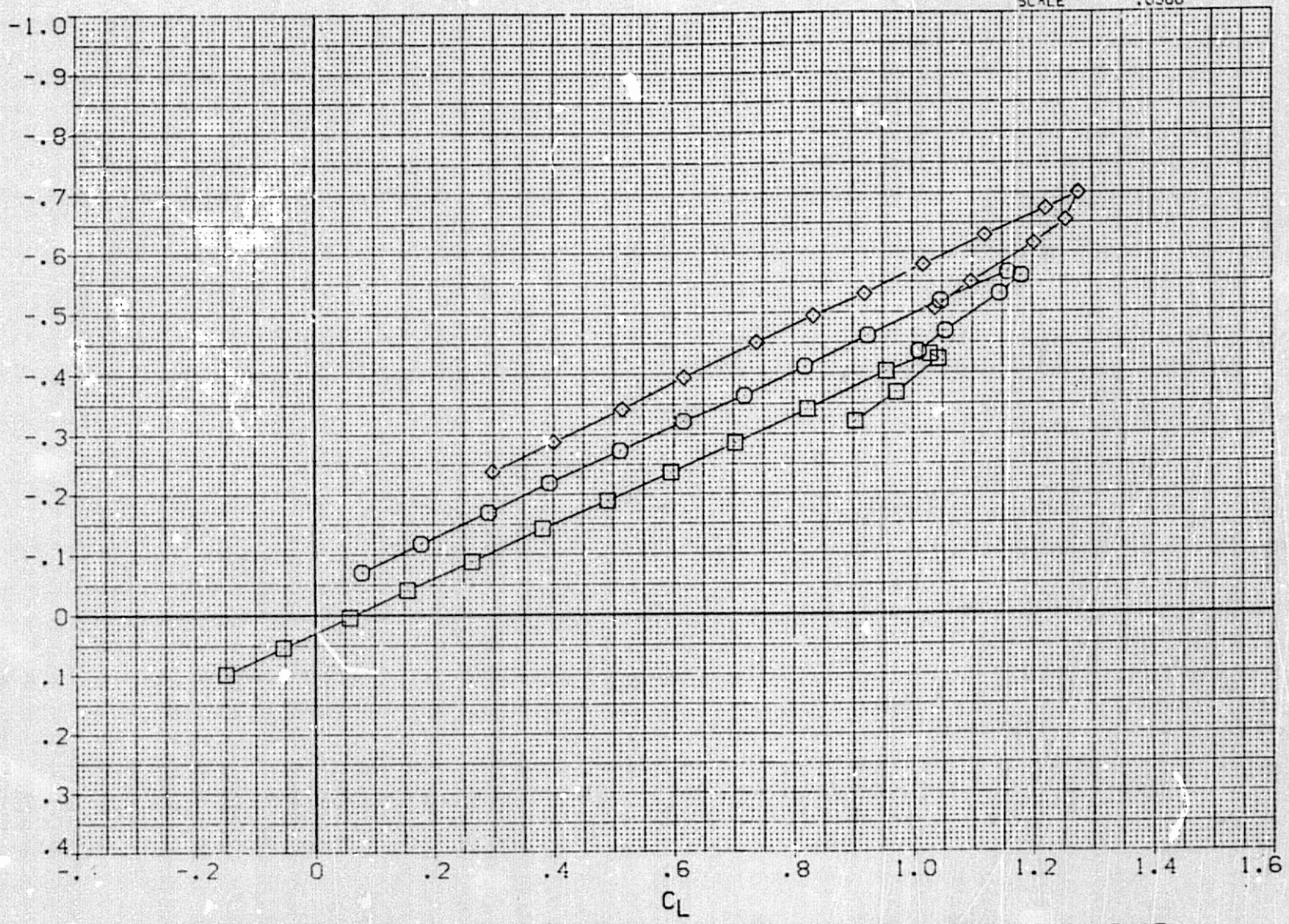

FIG 22 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT +10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH060)	○	W2B1V1H2F(1.-10)
(RFH061)	□	W2B1V1H2F(1.-10)
(RFH062)	◇	W2B1V1H2F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

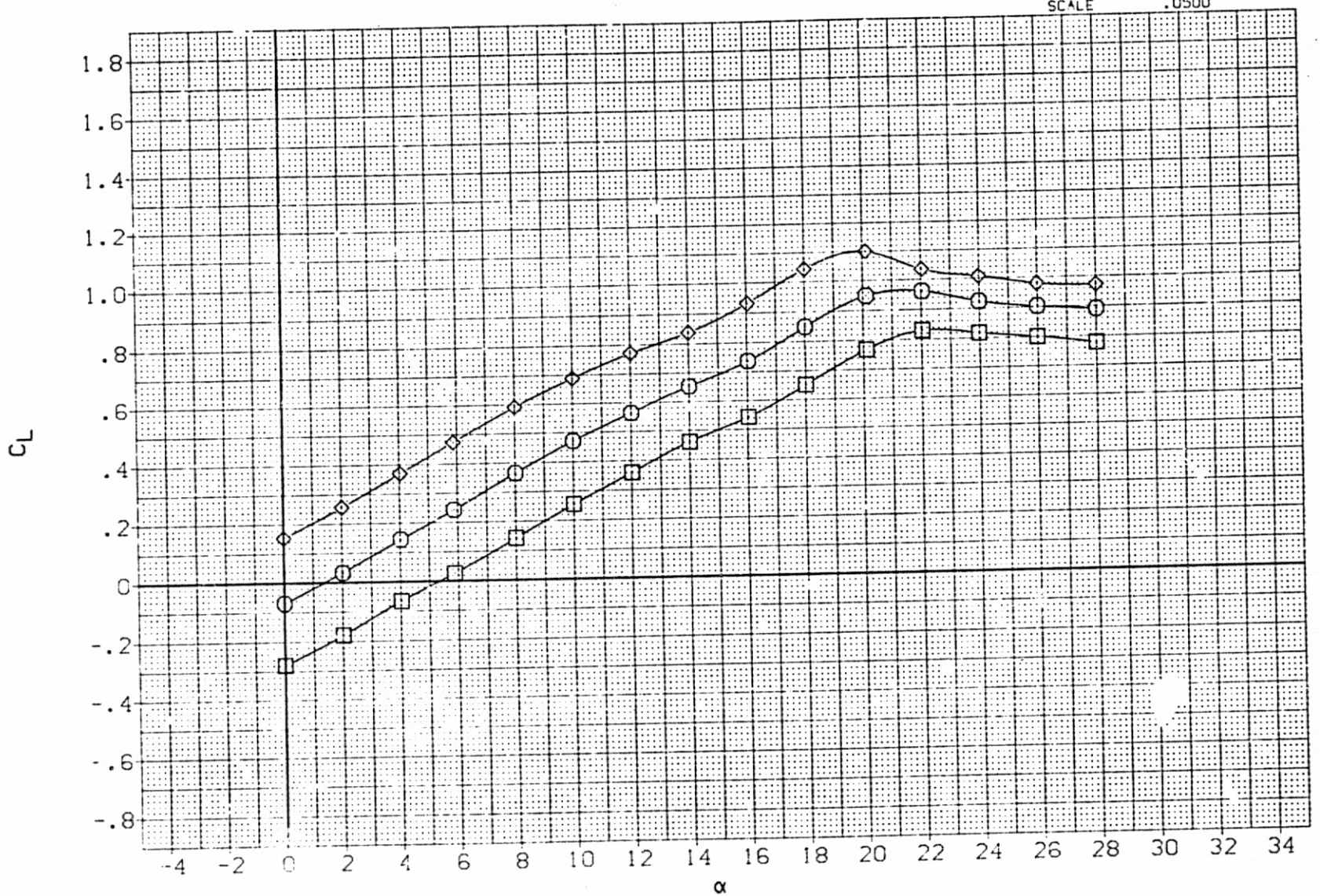

FIG 23 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT -10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH060)	○	W2B1V1H2F(1.-10)
(RFH061)	□	W2B1V1H2F(1.-10)
(RFH062)	◇	W2B1V1H2F(1.-10)

ELEVN	MACH	BETA
.000	.067	.000
-10.000	.067	.000
10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

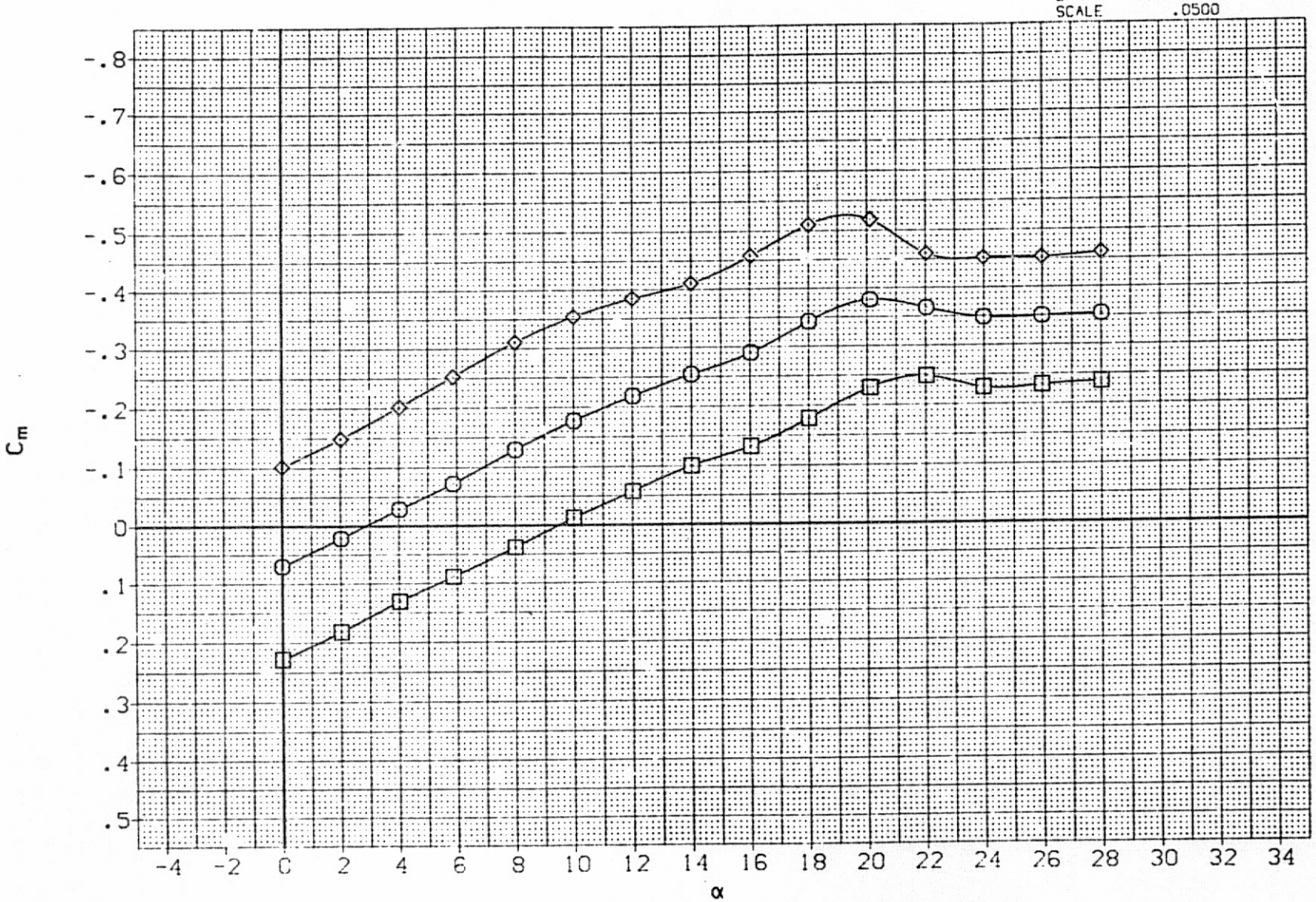

FIG 23 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT -10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH060)	○	W2B1V1H2F(1.-10)	.000	.067	.000
(RFH061)	□	W2B1V1H2F(1.-10)	-10.000	.067	.000
(RFH062)	◇	W2B1V1H2F(1.-10)	10.000	.067	.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

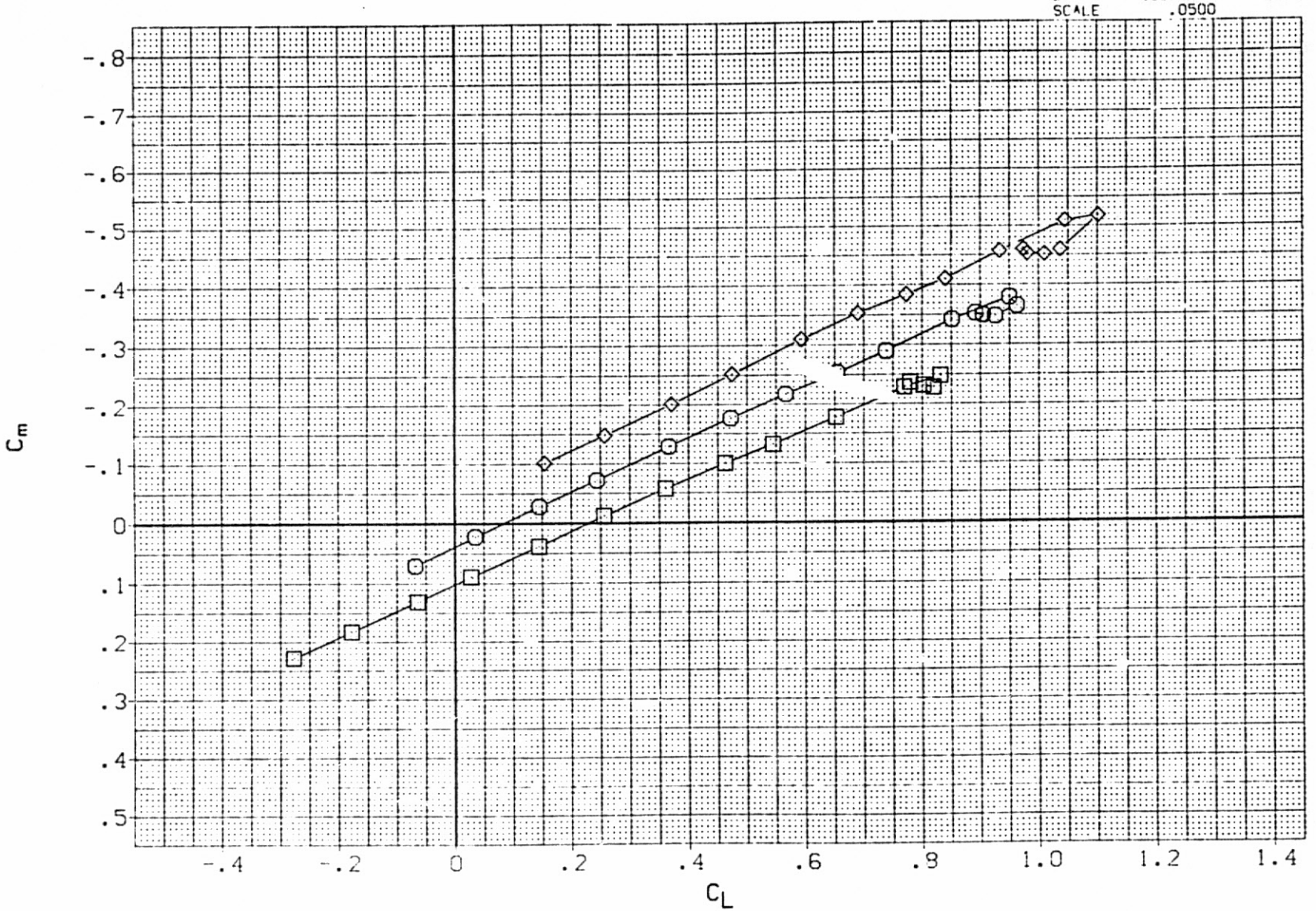

FIG 23 LONGITUDINAL EFFECTS OF ELEVON DEFLECTION WITH HORIZONTAL TAIL 2 AT -10 DEGREE INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

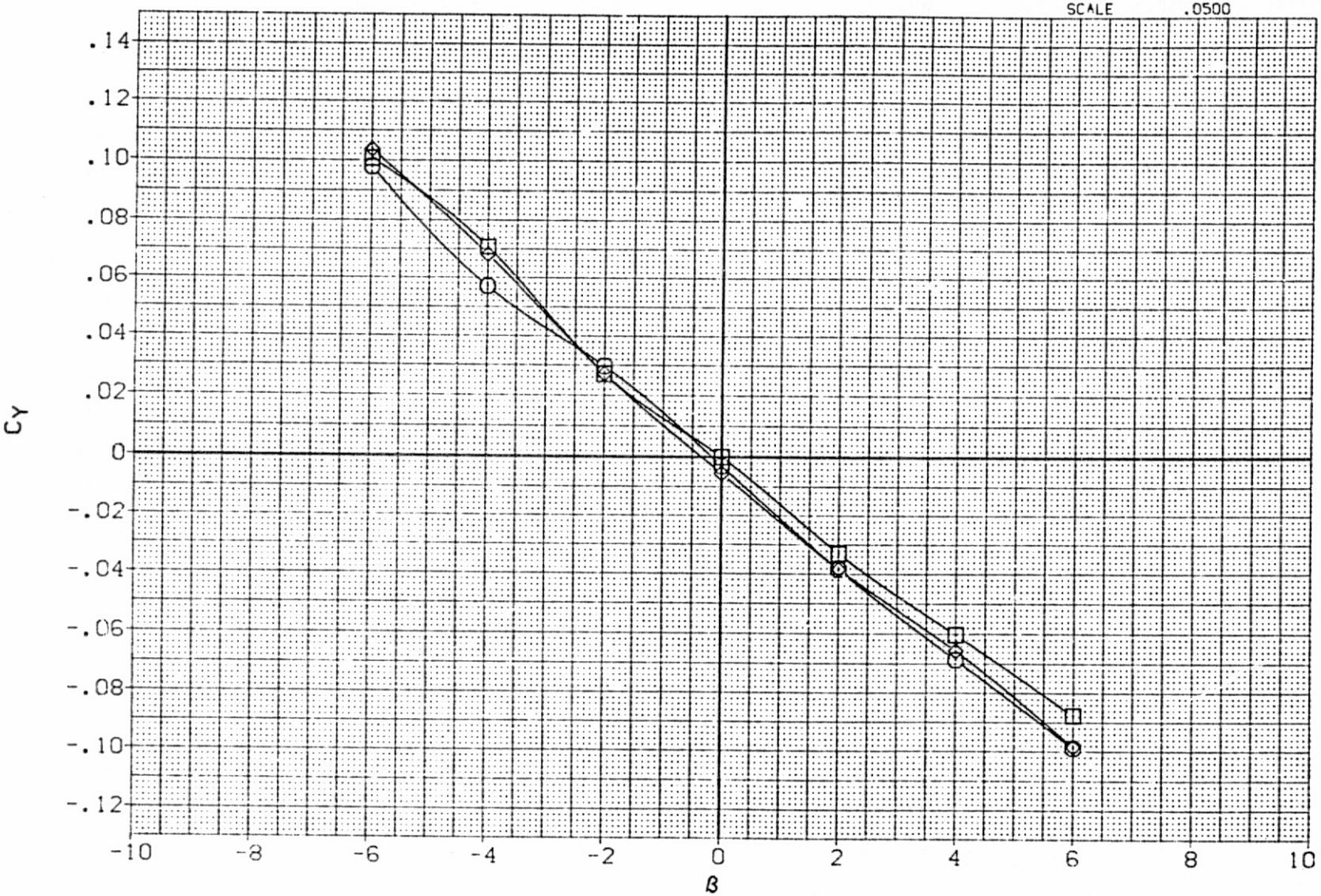

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH002)	○	W2B1V1
(RFH006)	□	W2B1V1H1F(1.0)
(RFH018)	◇	W2B1V1H2F(1.0)

ELEVN	MACH
.000	.067
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

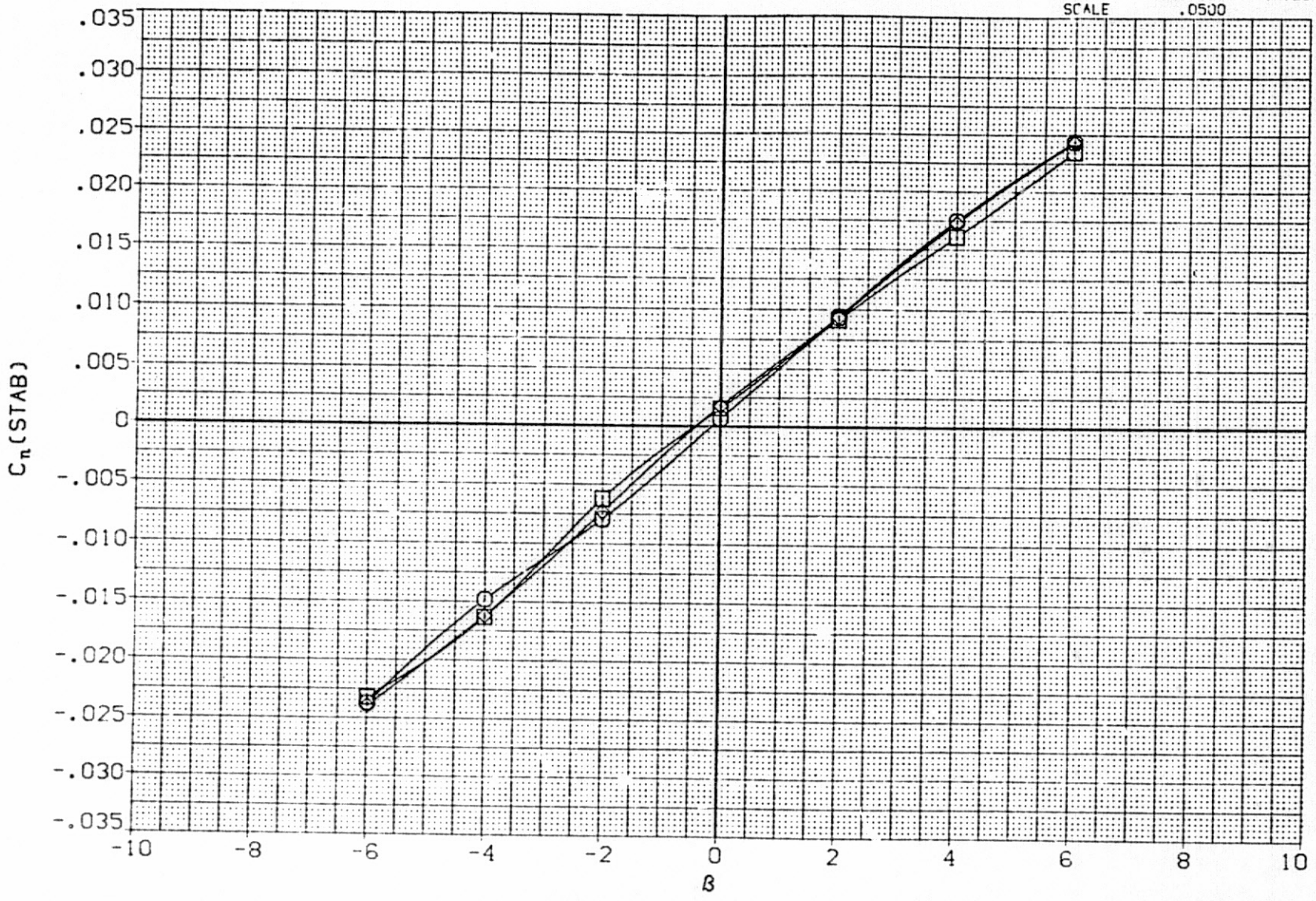

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	□	W2B1V1	.000	.067
(RFH006)	○	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

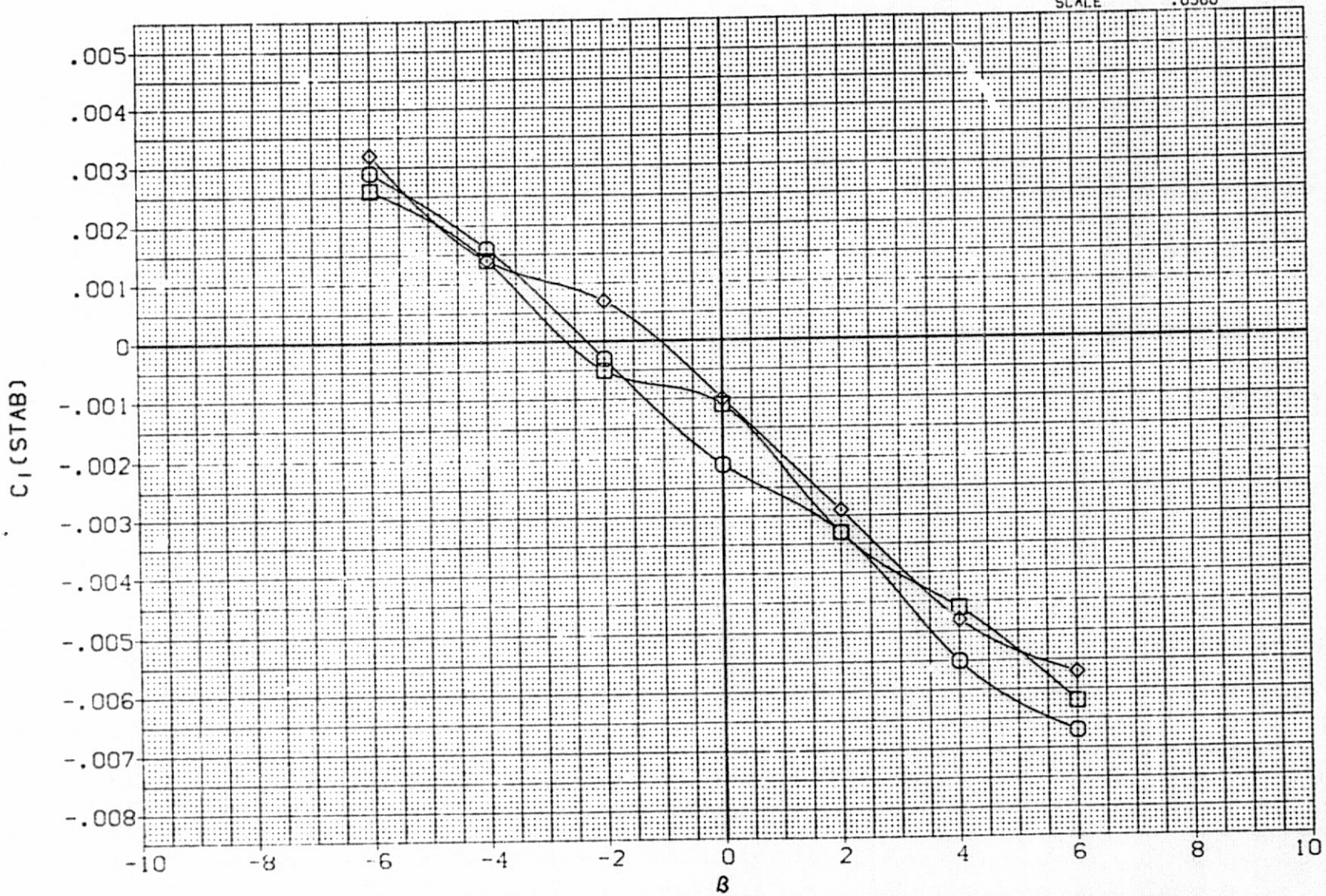

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

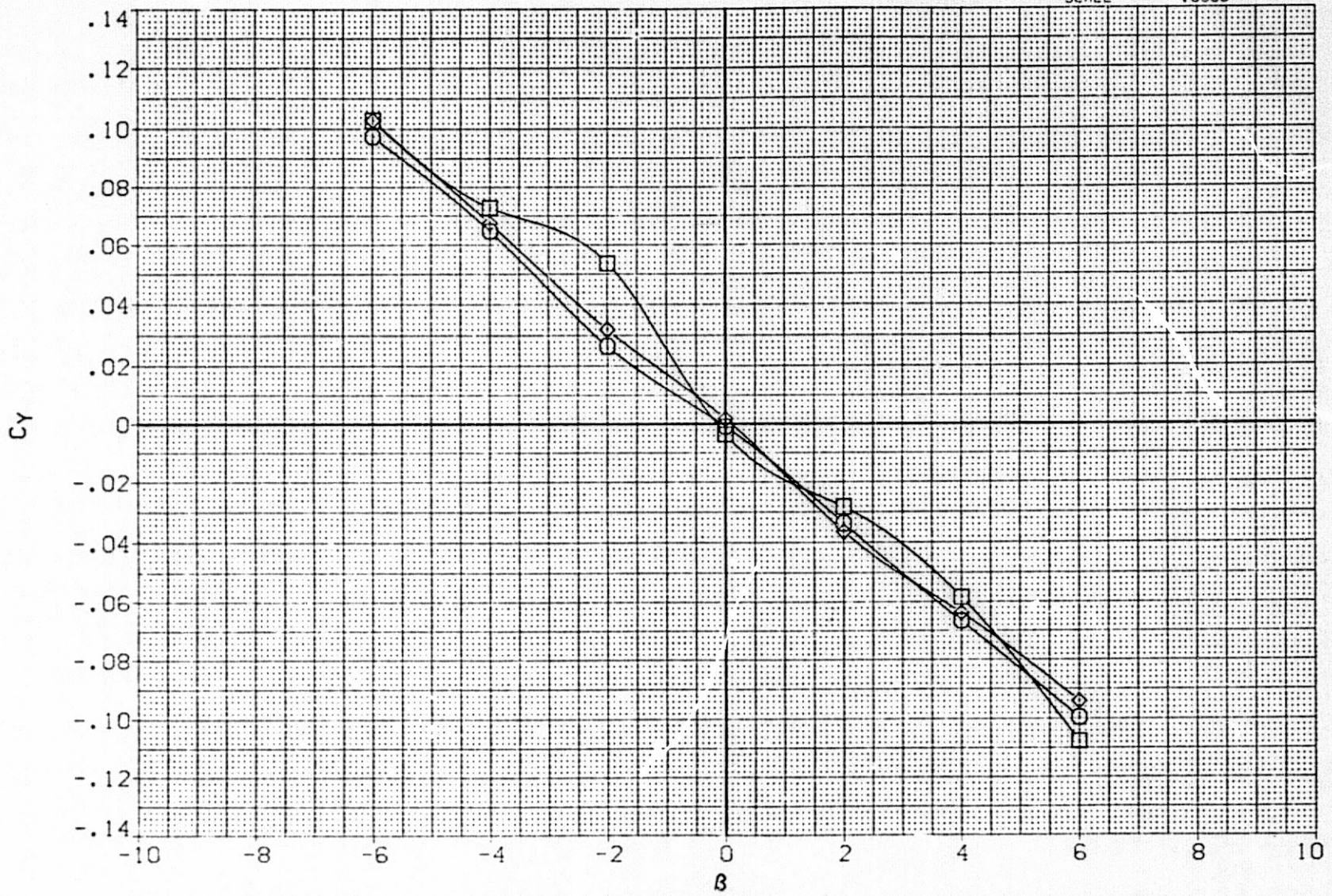

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(B)ALPHA = 4.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

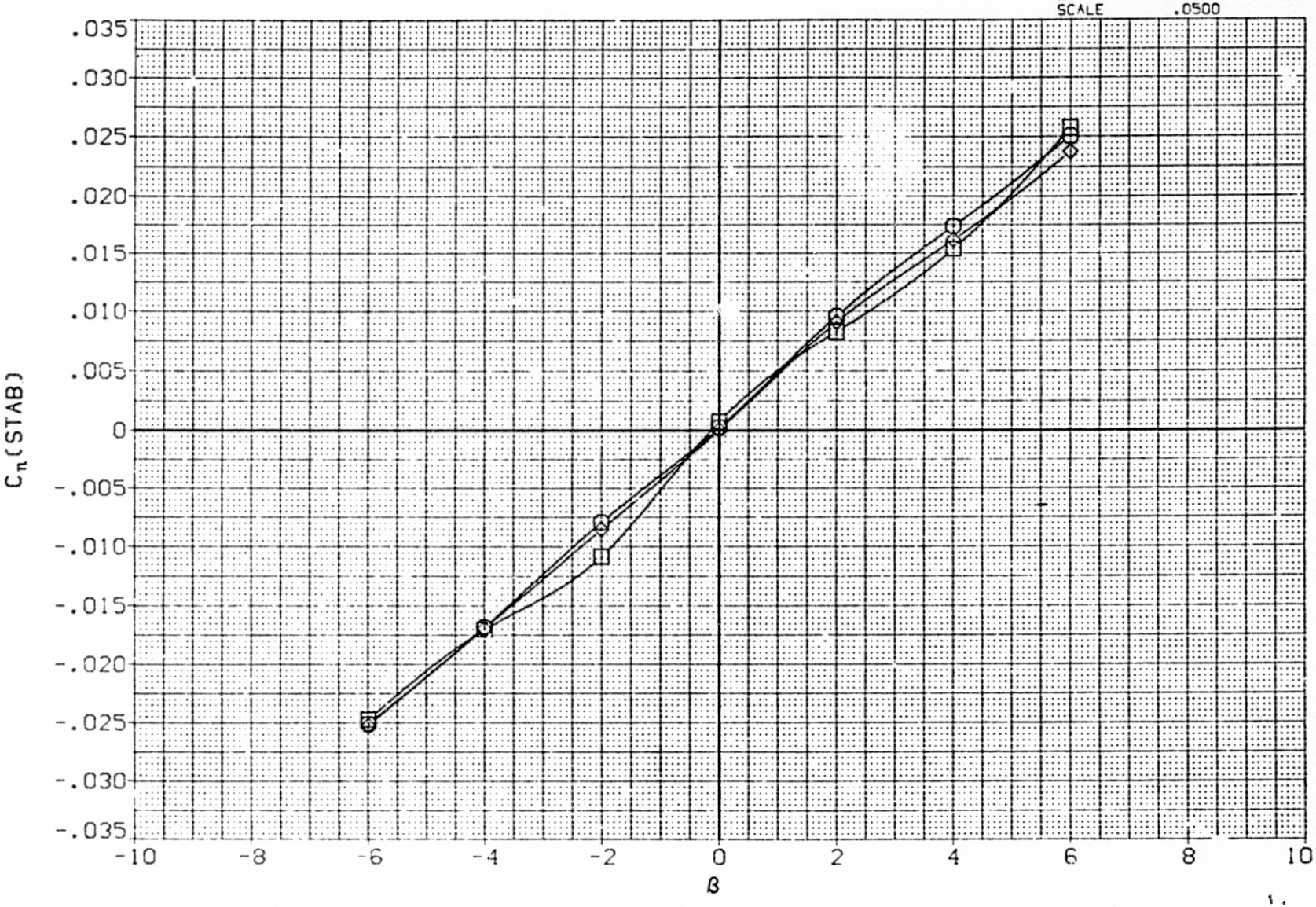

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(B)ALPHA = 4.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	□	W2B1V1	.000	.067
(RFH006)	⊏□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

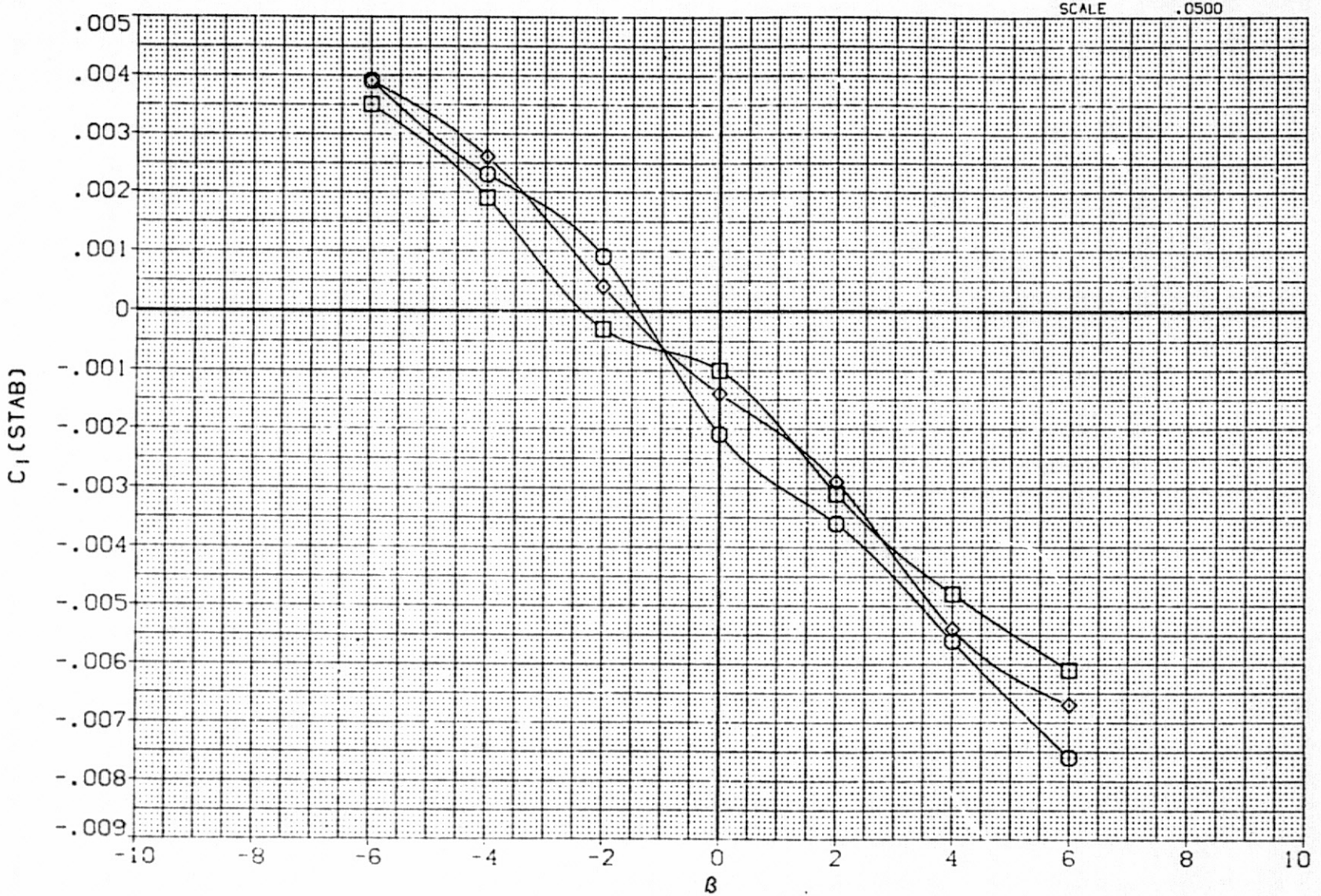

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(B)ALPHA = 4.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

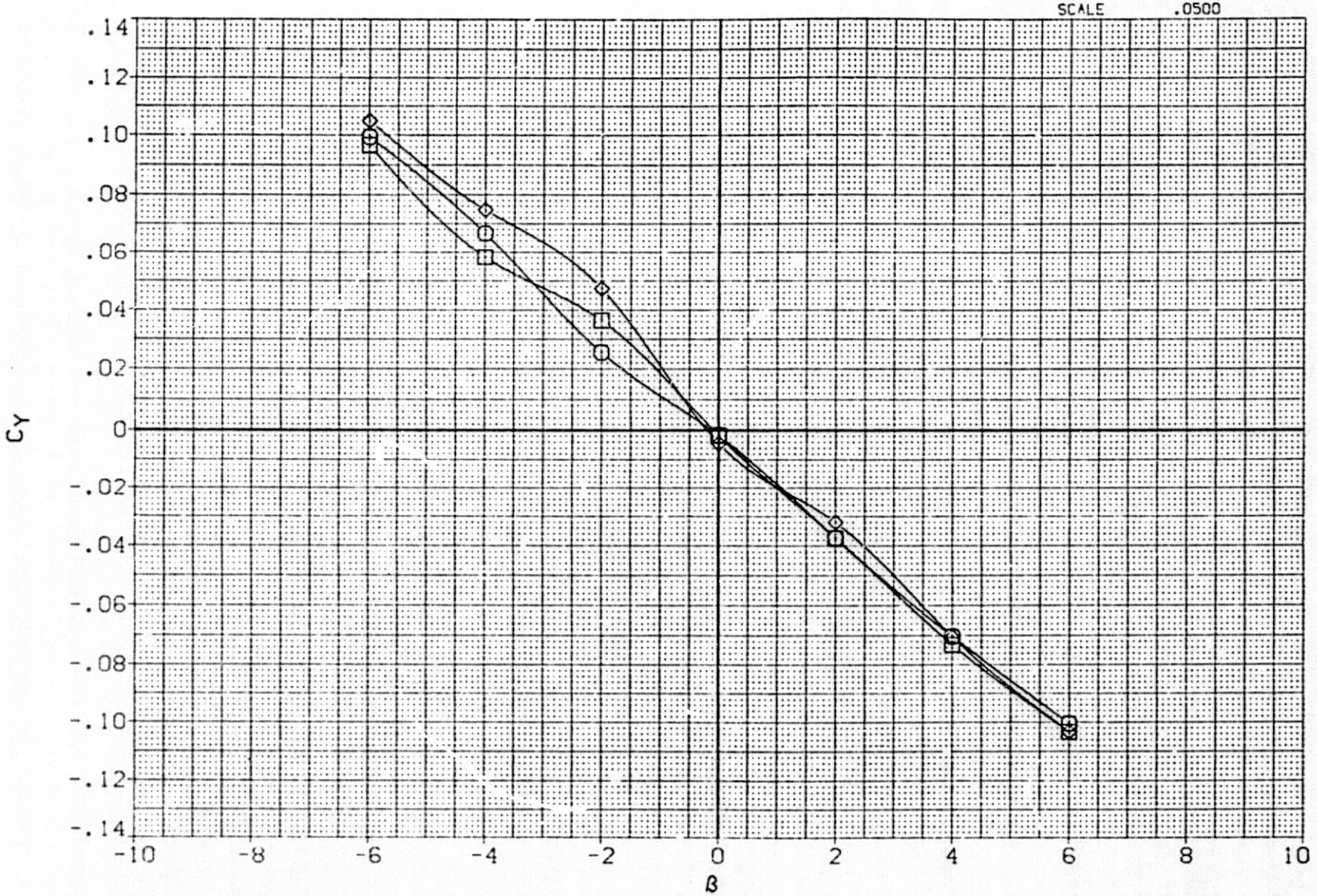

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(C)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MAC.I
(RFH002)	□	W2B1V1	.000	.067
(RFH006)	◇□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

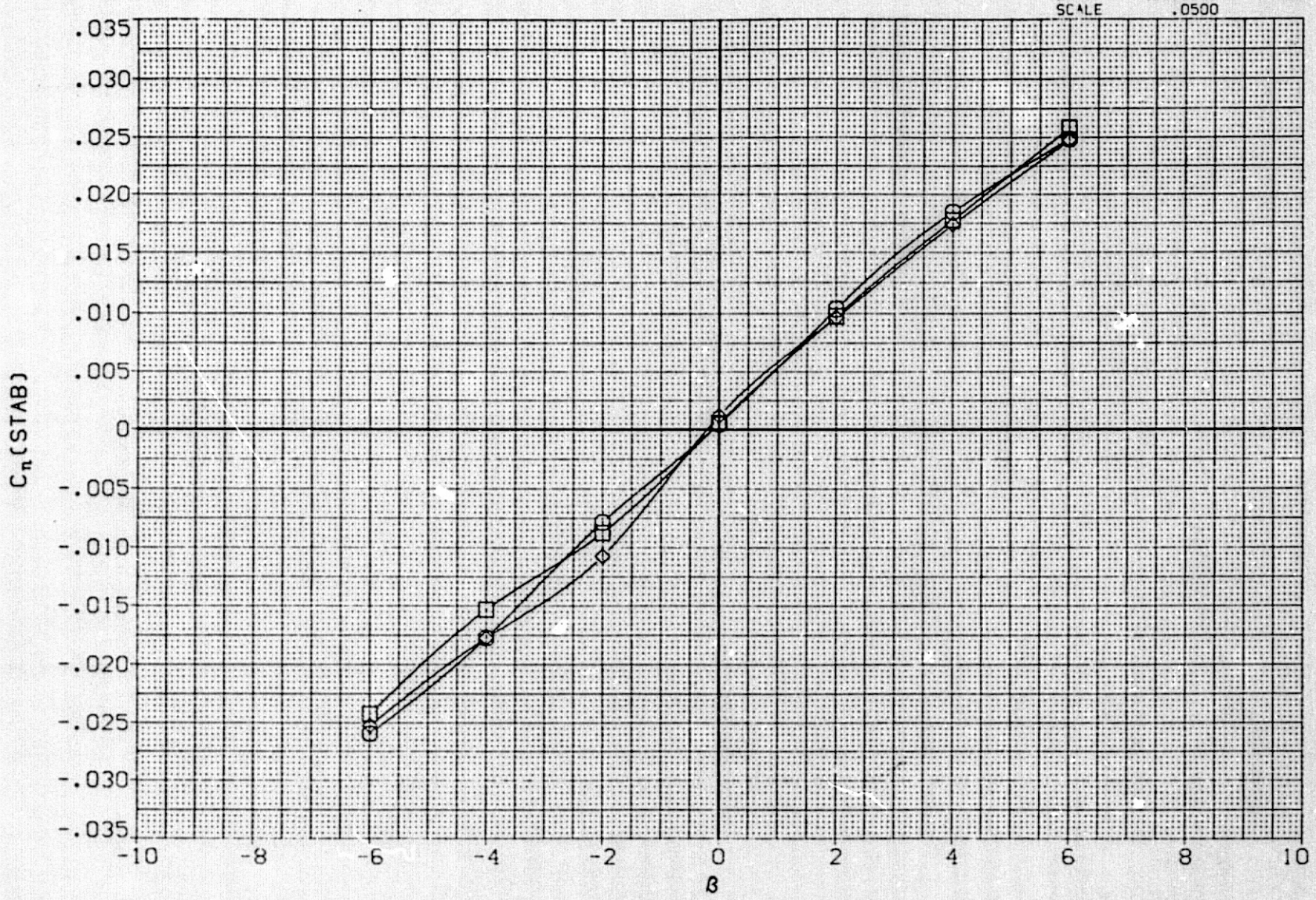

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(C)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	□	W2B1V1	.000	.067
(RFH006)	◇	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

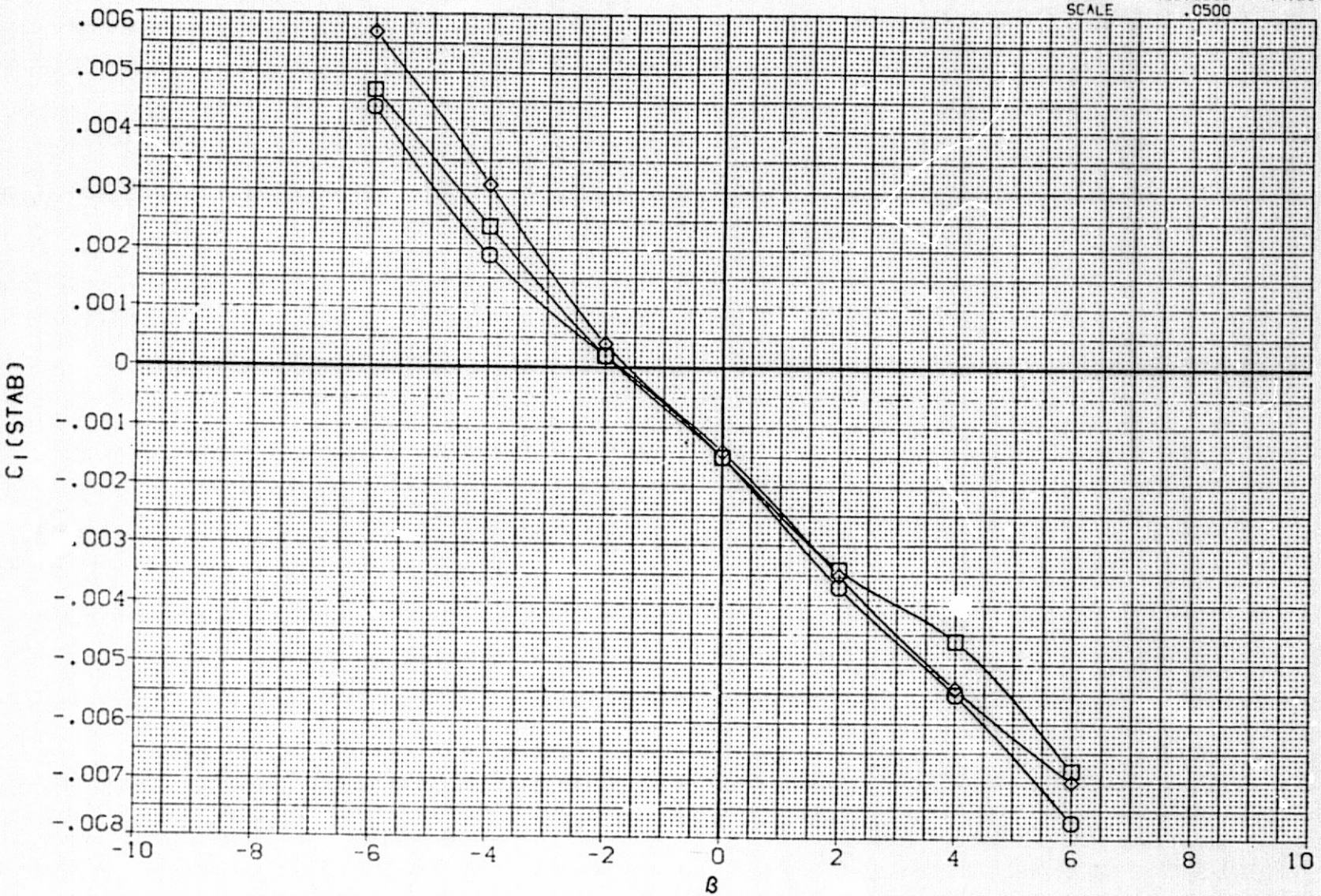

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(C)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	□	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

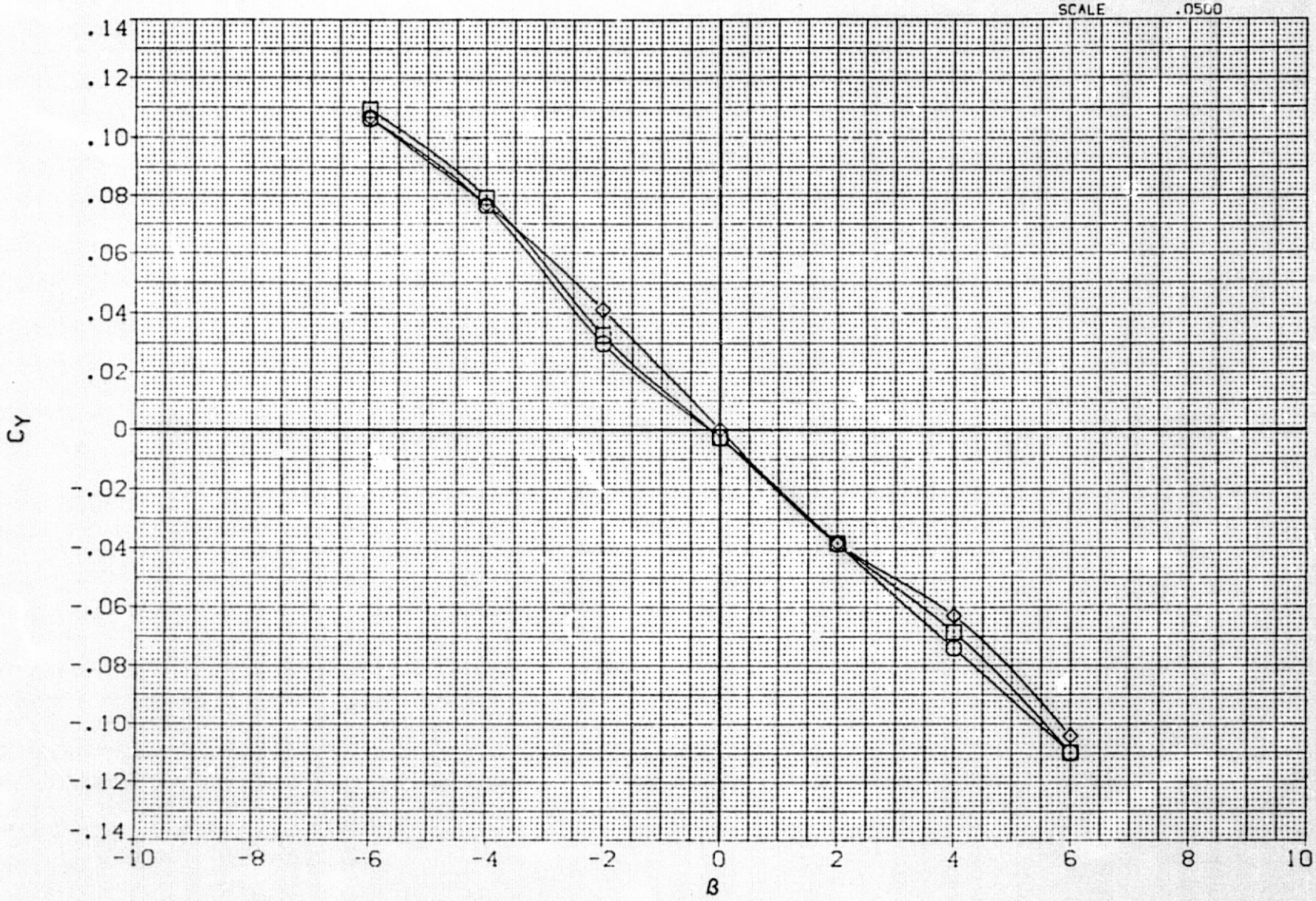

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(D)ALPHA = 16.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

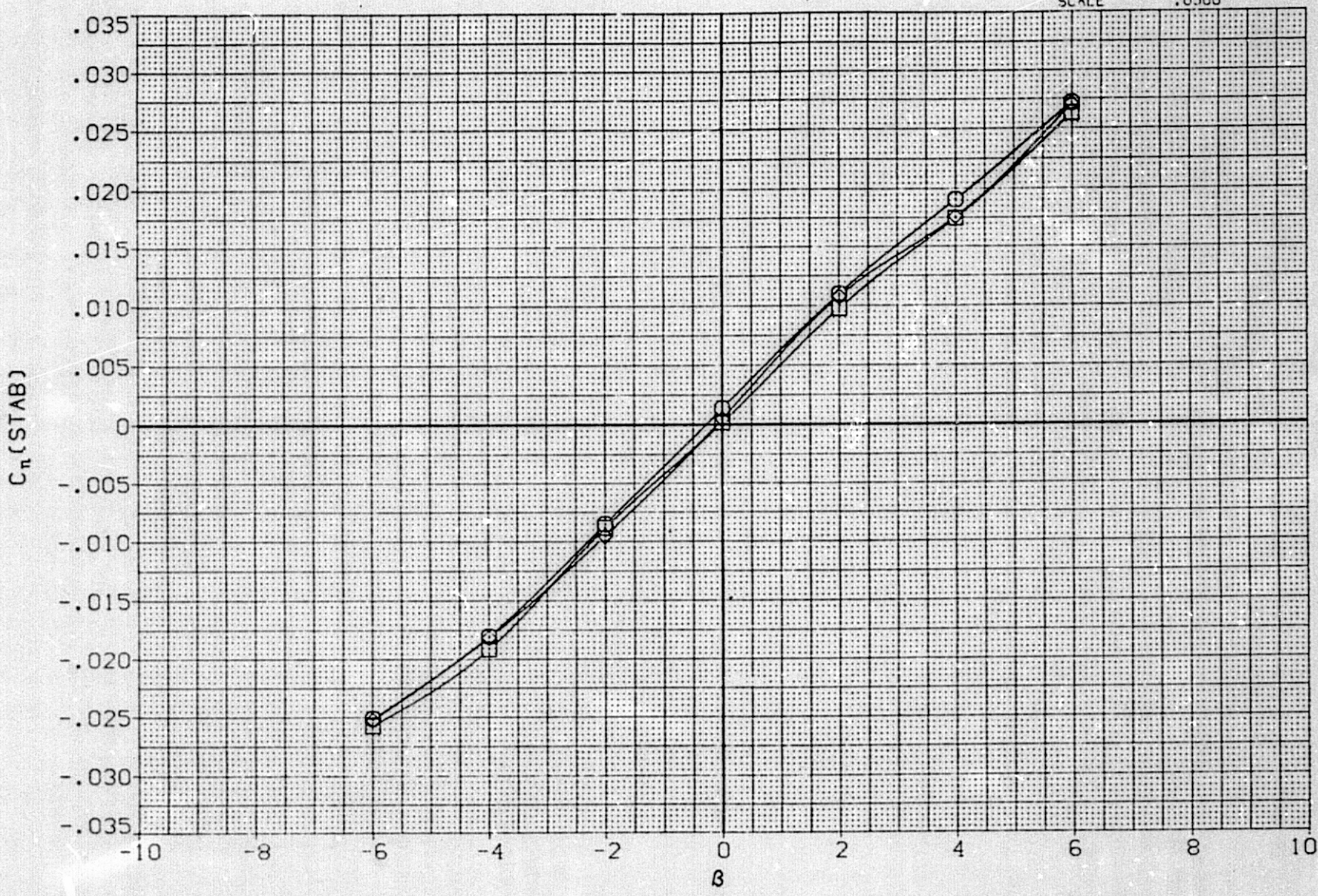

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(D)ALPHA = 16.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B.V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B.V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

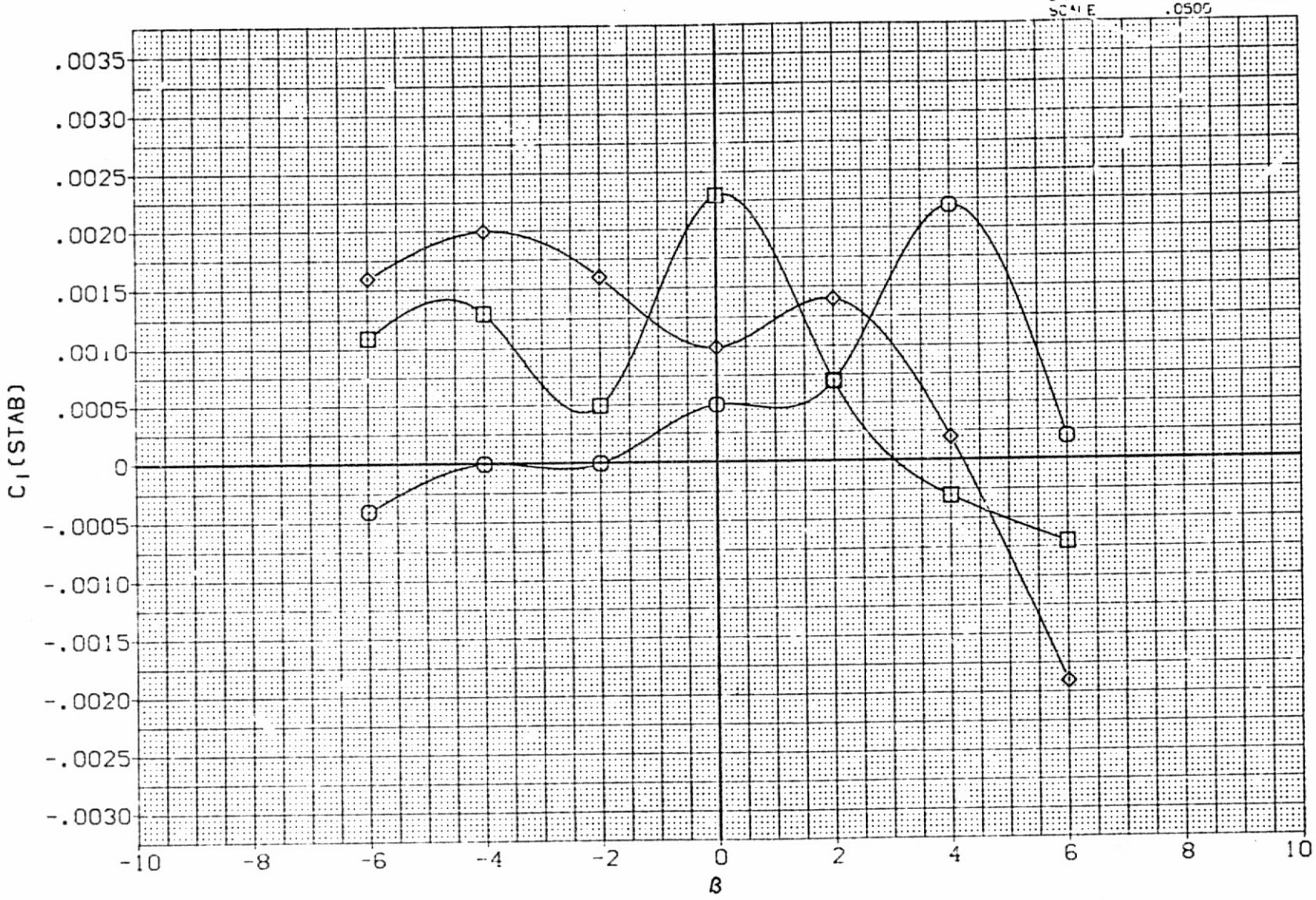

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(D)ALPHA = 16.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

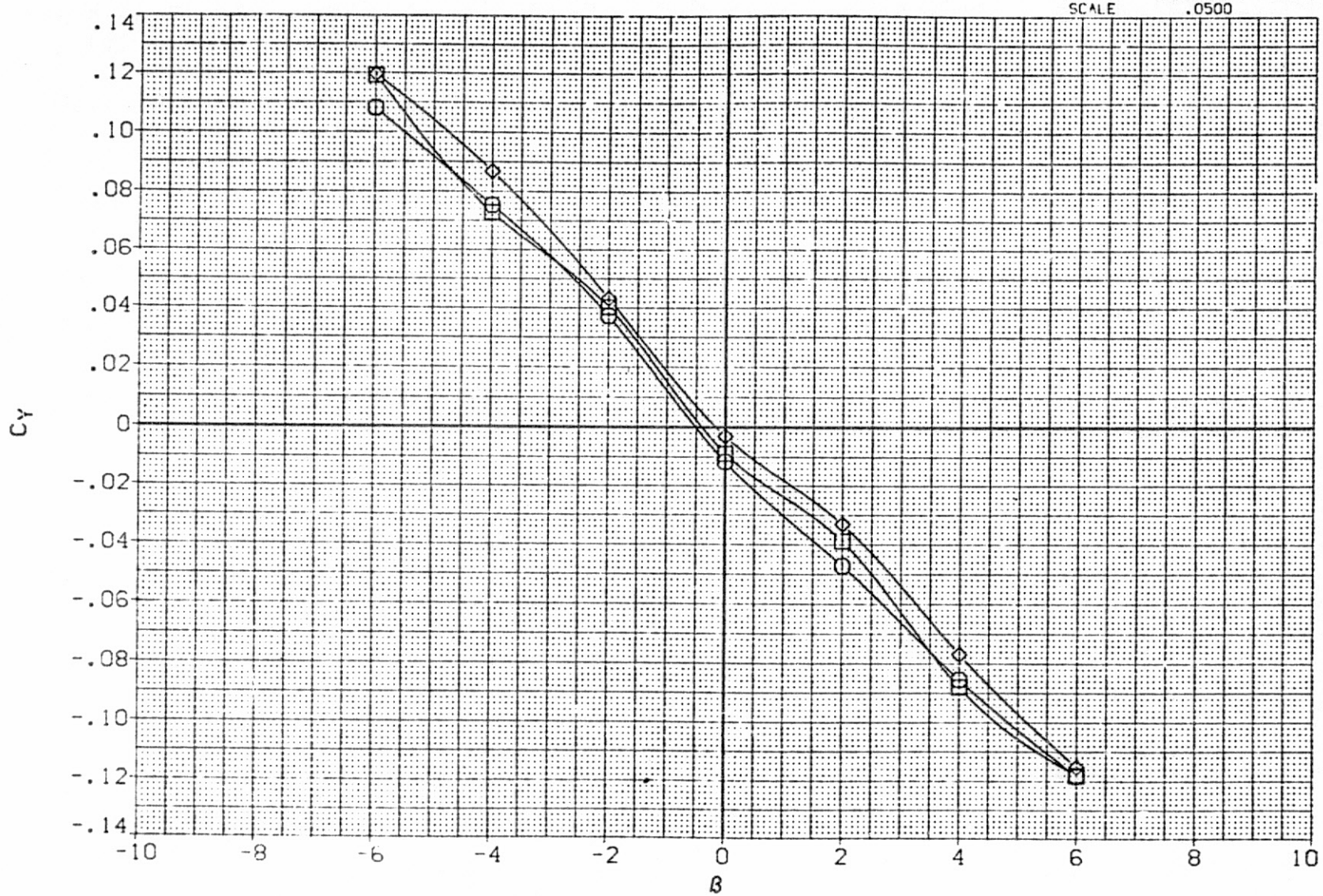

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(E)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(E)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH006)	□	W2B1V1H1F(1.0)	.000	.067
(RFH018)	◇	W2B1V1H2F(1.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

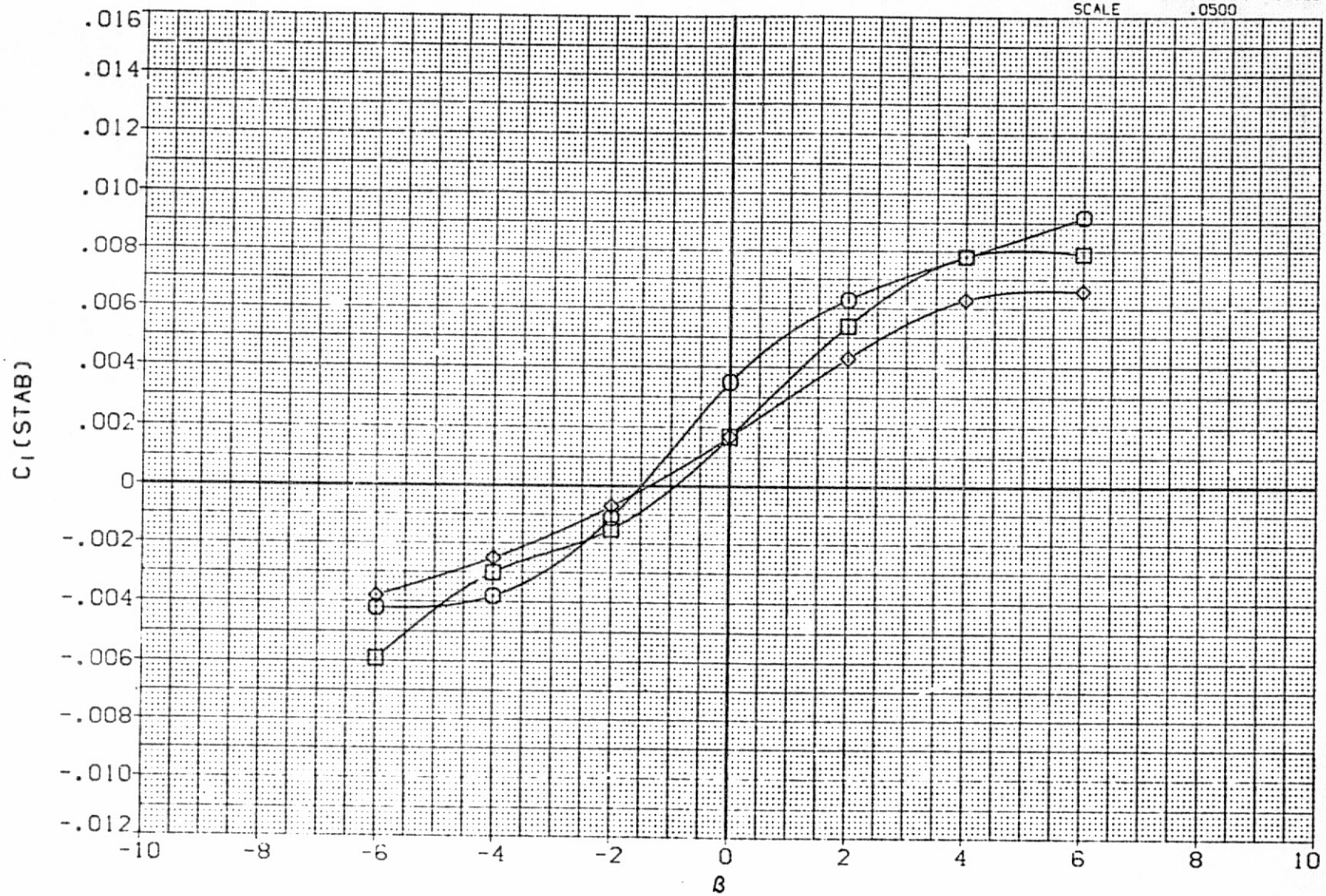

FIG 24 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 1 FOR CONFIGURATION W2B1V1

(E)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH023)	□	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

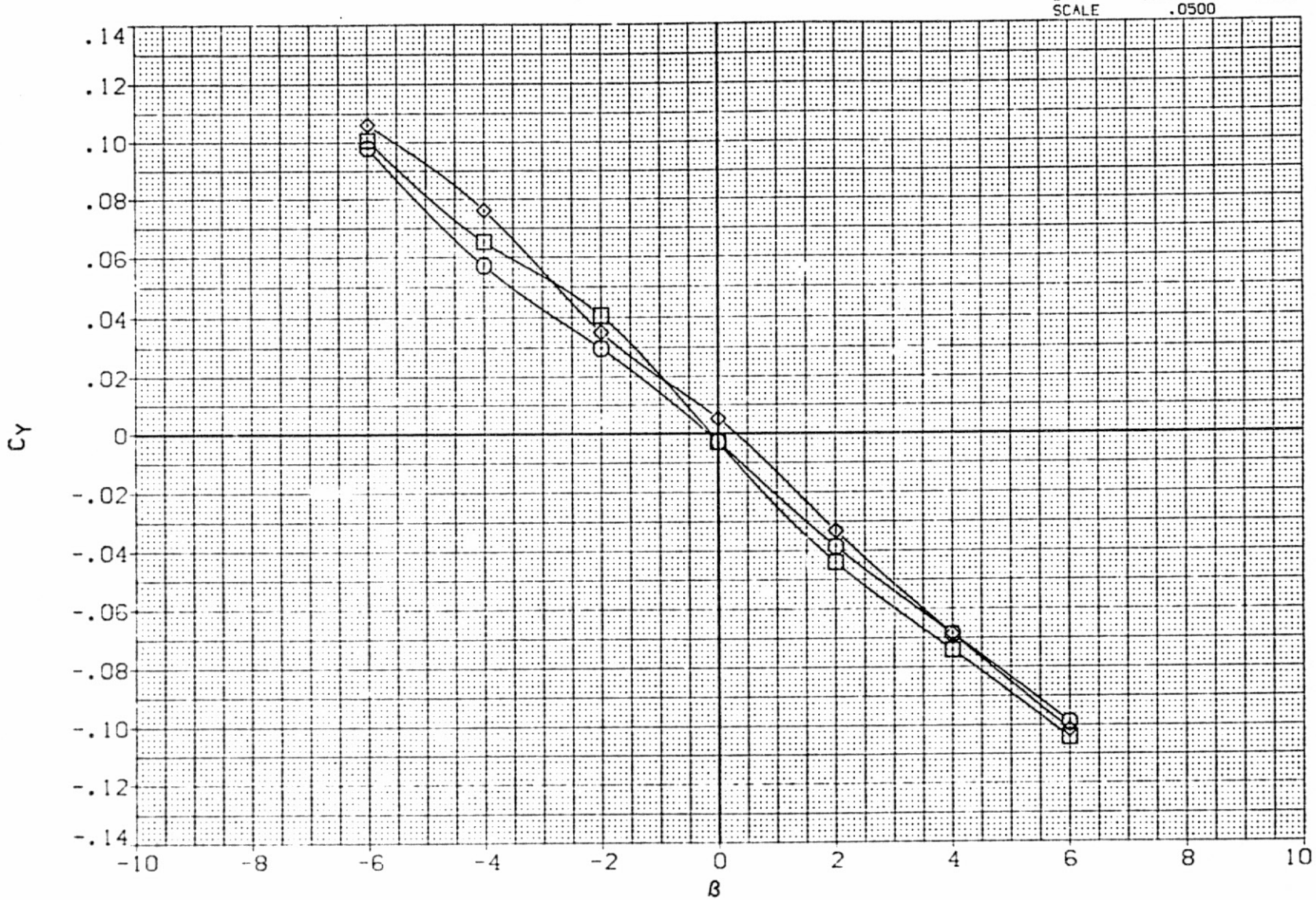

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH023)	□	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

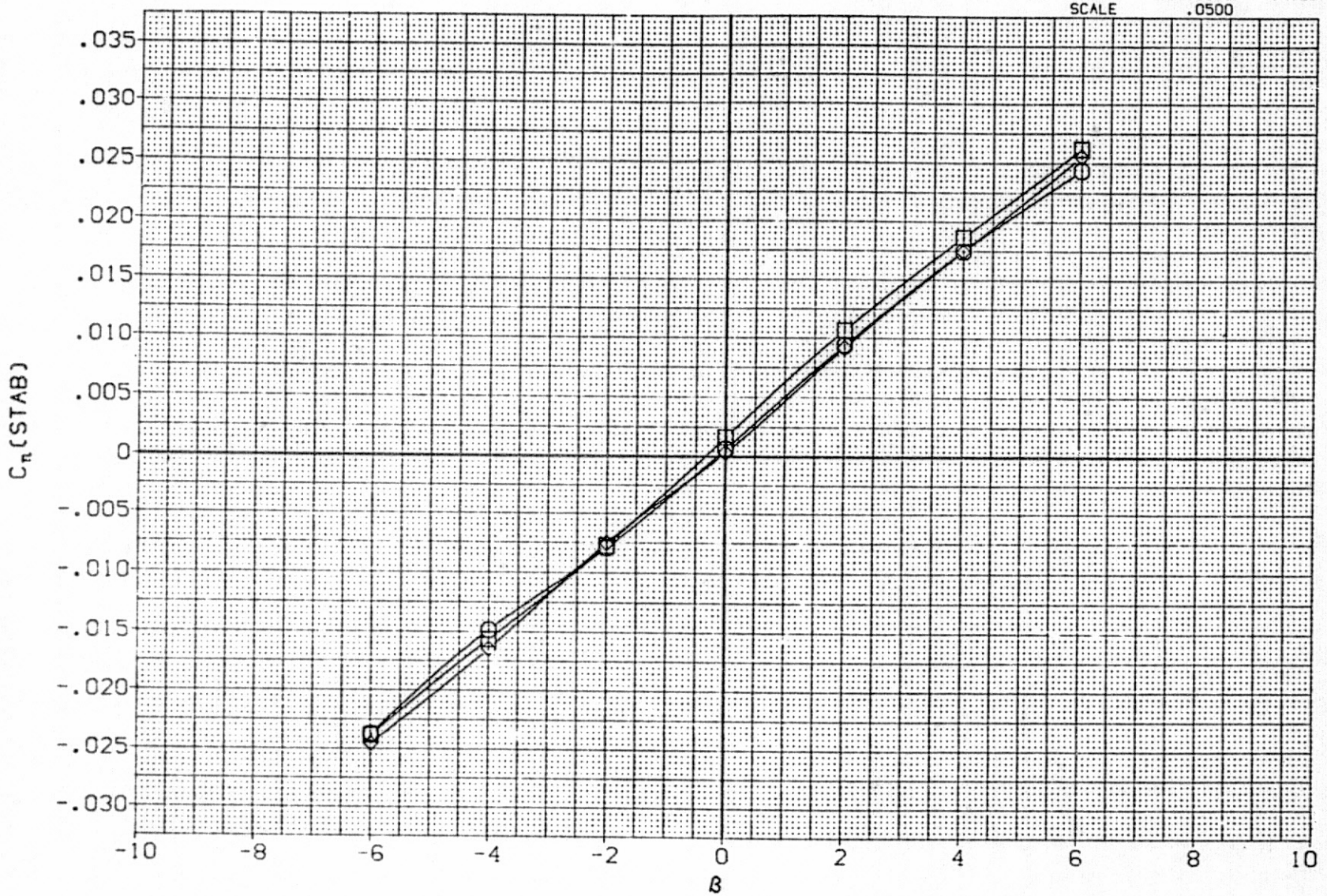

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	□	W2B1V1	.000	.067
(RFH023)	○	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

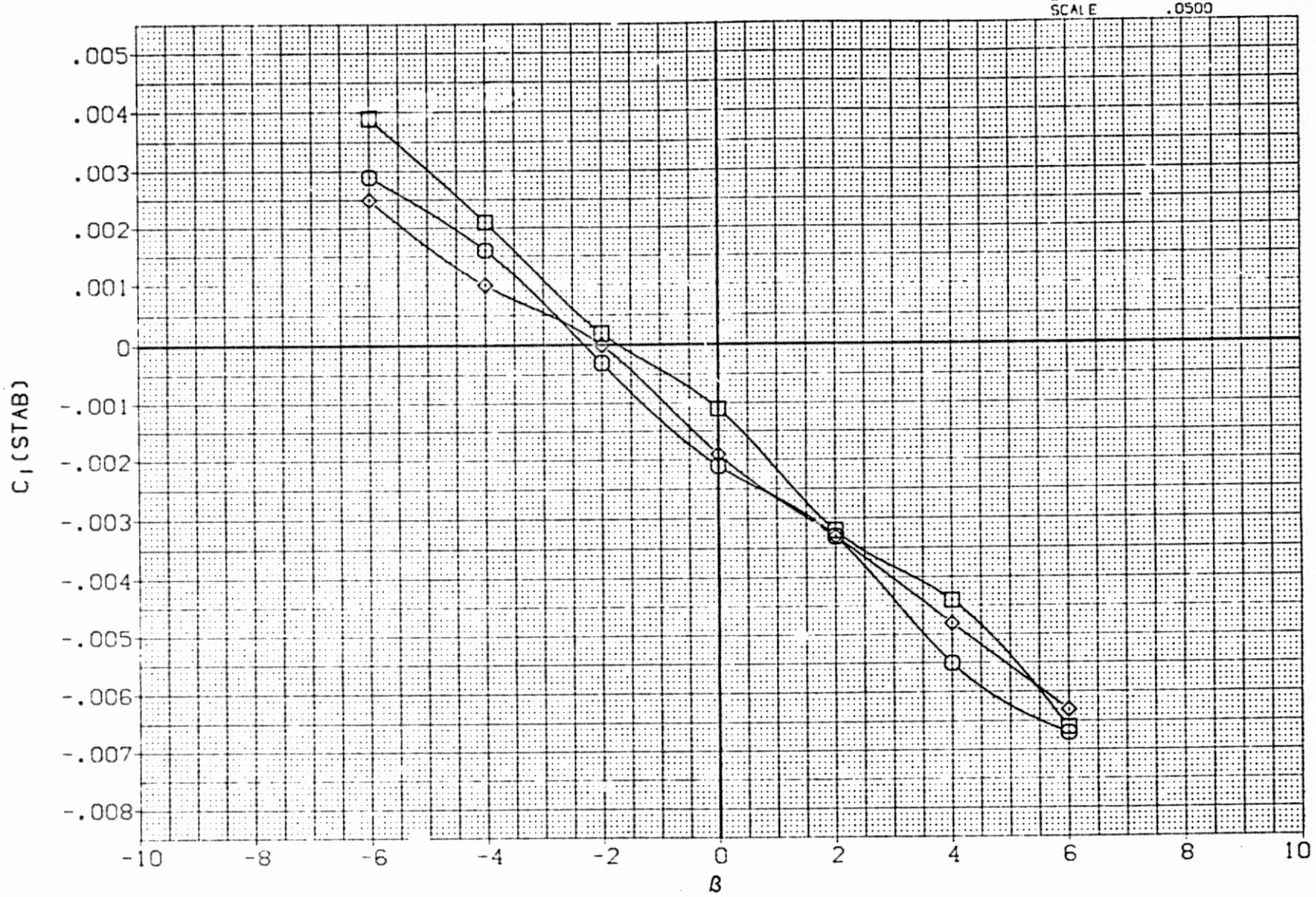

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	□	W2B1V1	.000	.067
(RFH023)	△	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

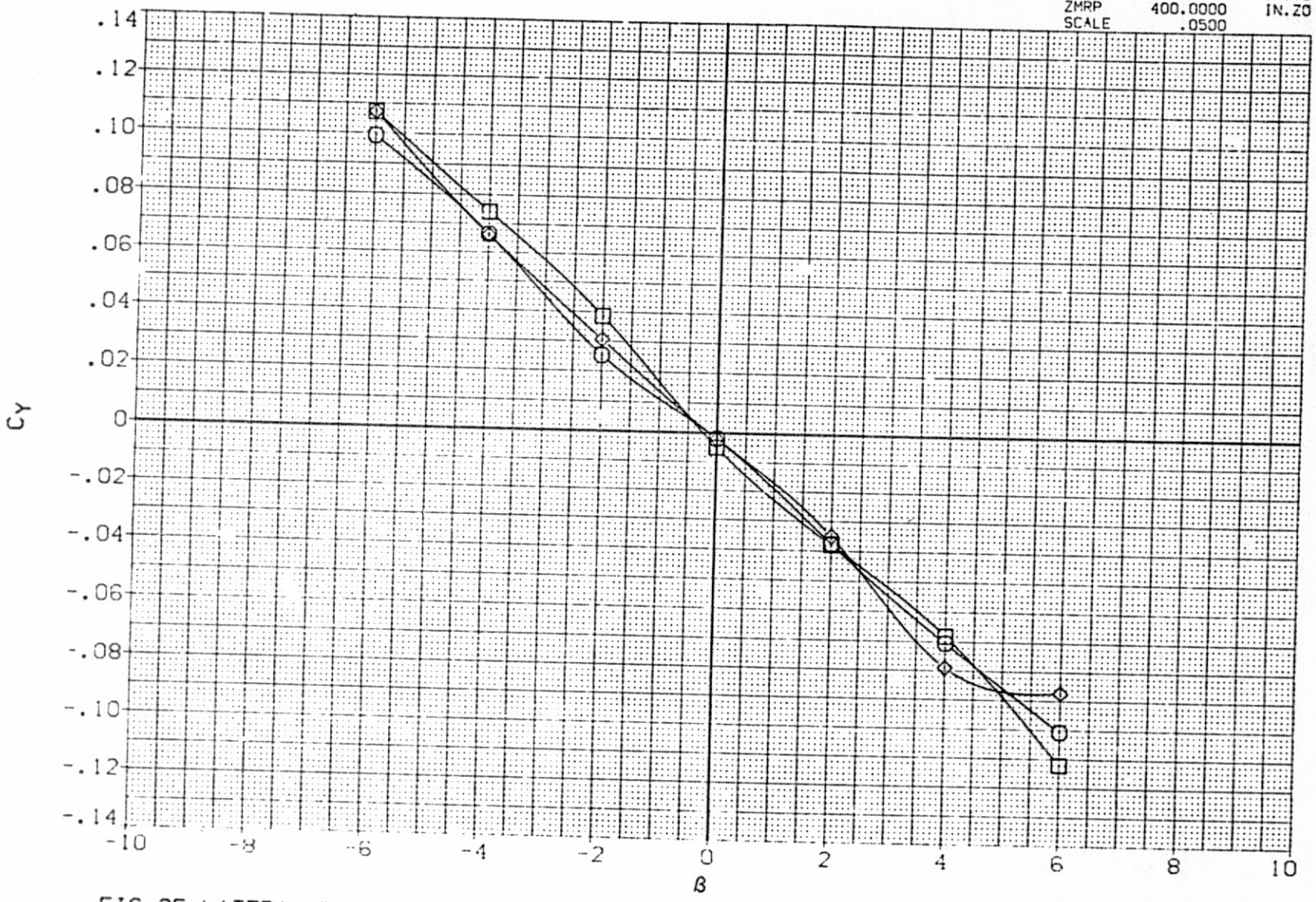

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH002)	○	W2B1V1	.000	.067
(RFH023)	□	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

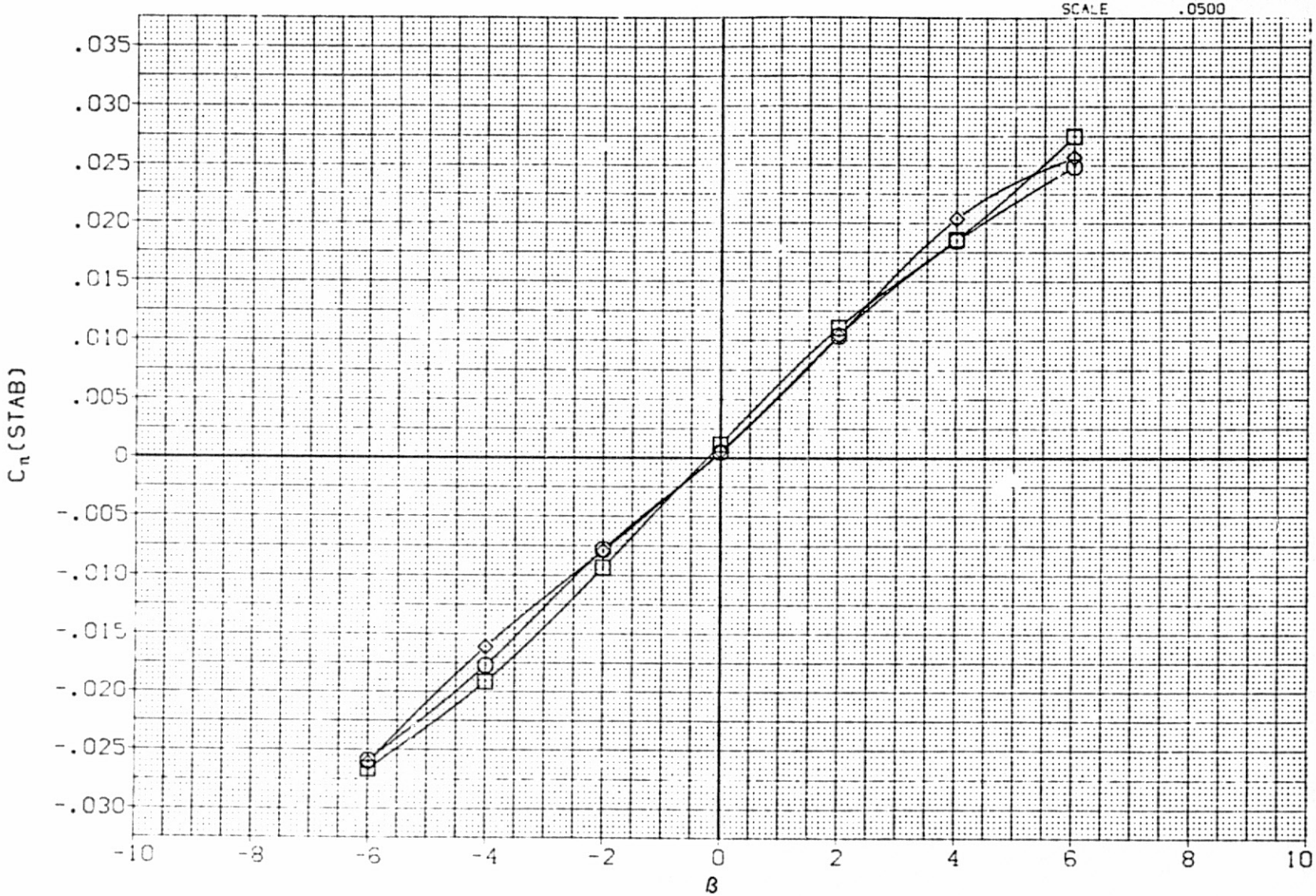

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	□	W2B1V1	.000	.067
(RFH023)	◇	W2B1V1H2F(2.0)	.000	.067
(RFH024)		W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

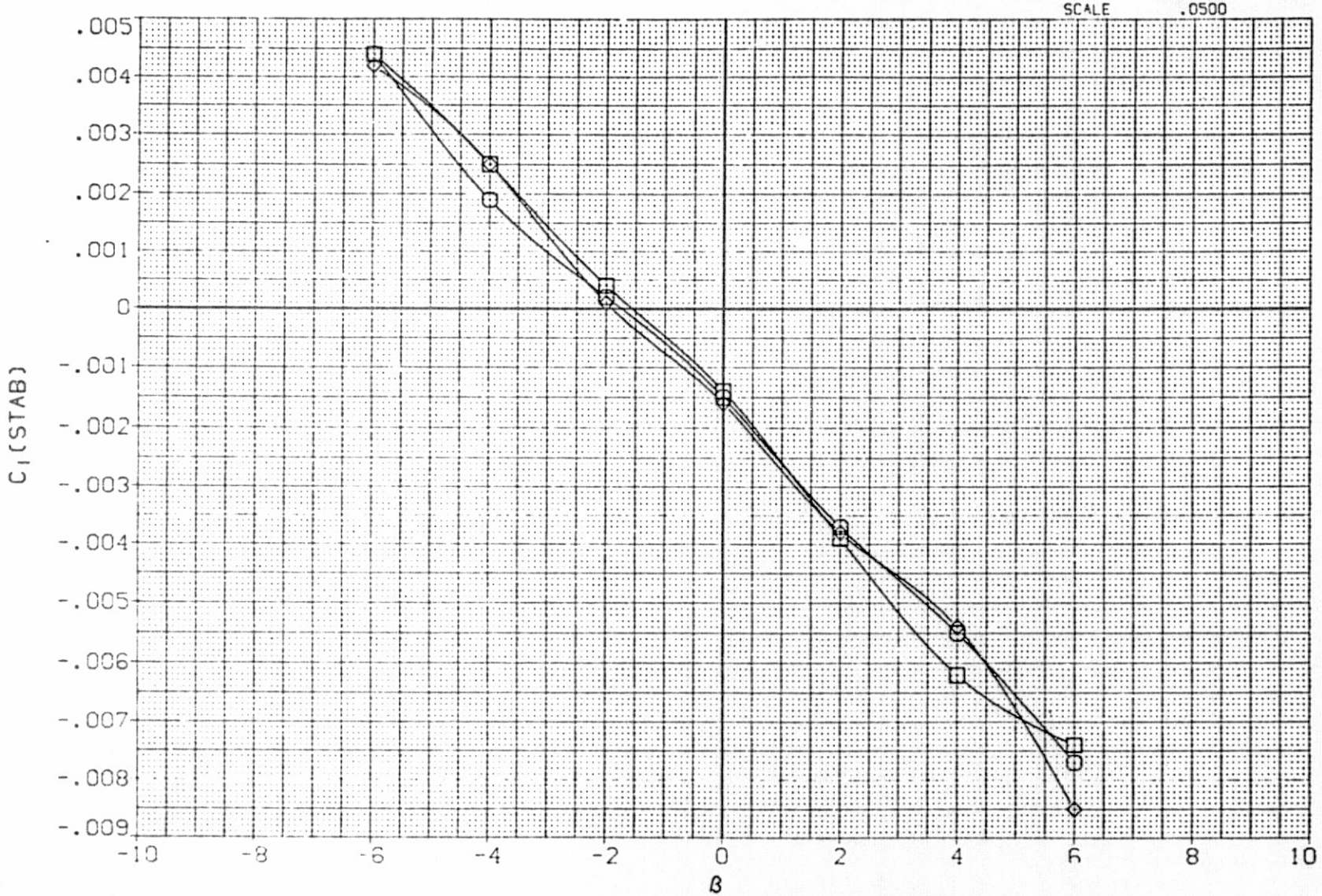

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(AFH002)	□	W2B1V1
(RFH023)	○	W2B1V1H2F(2.0)
(RFH024)	◇	W2B1V1H1F(2.0)

ELEVN	MACH
.000	.067
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

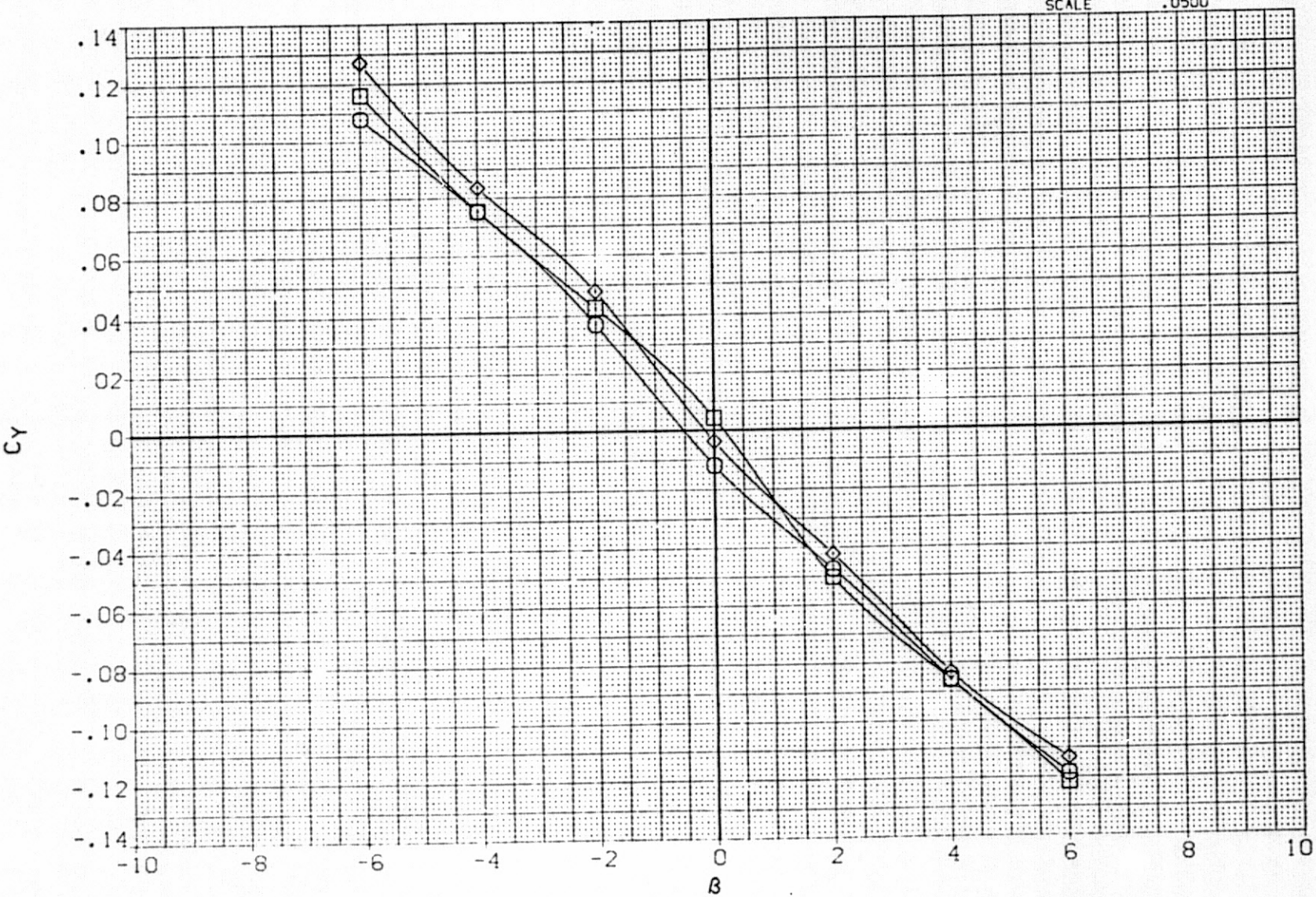

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH023)	□	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

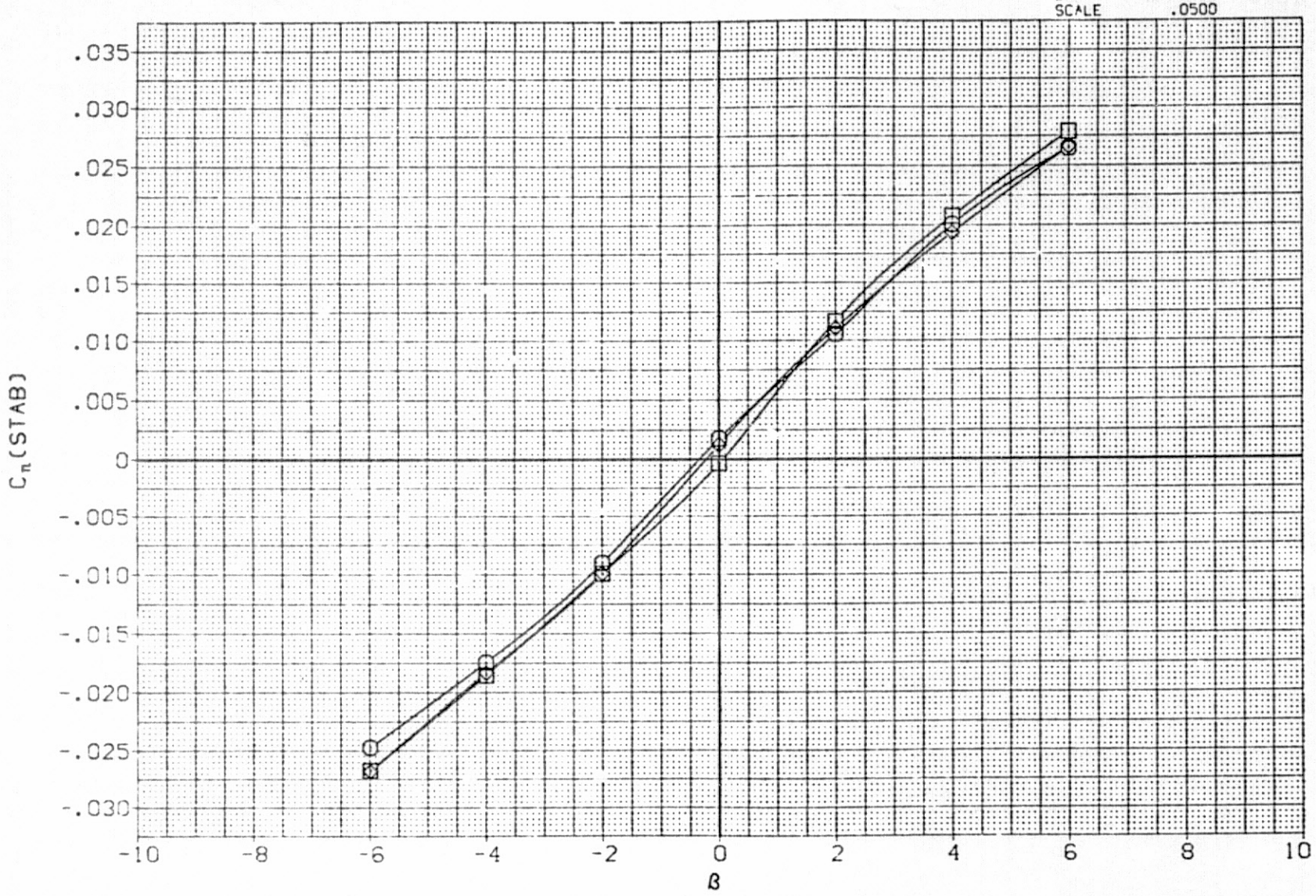

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH023)	□	W2B1V1H2F(2.0)	.000	.067
(RFH024)	◇	W2B1V1H1F(2.0)	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

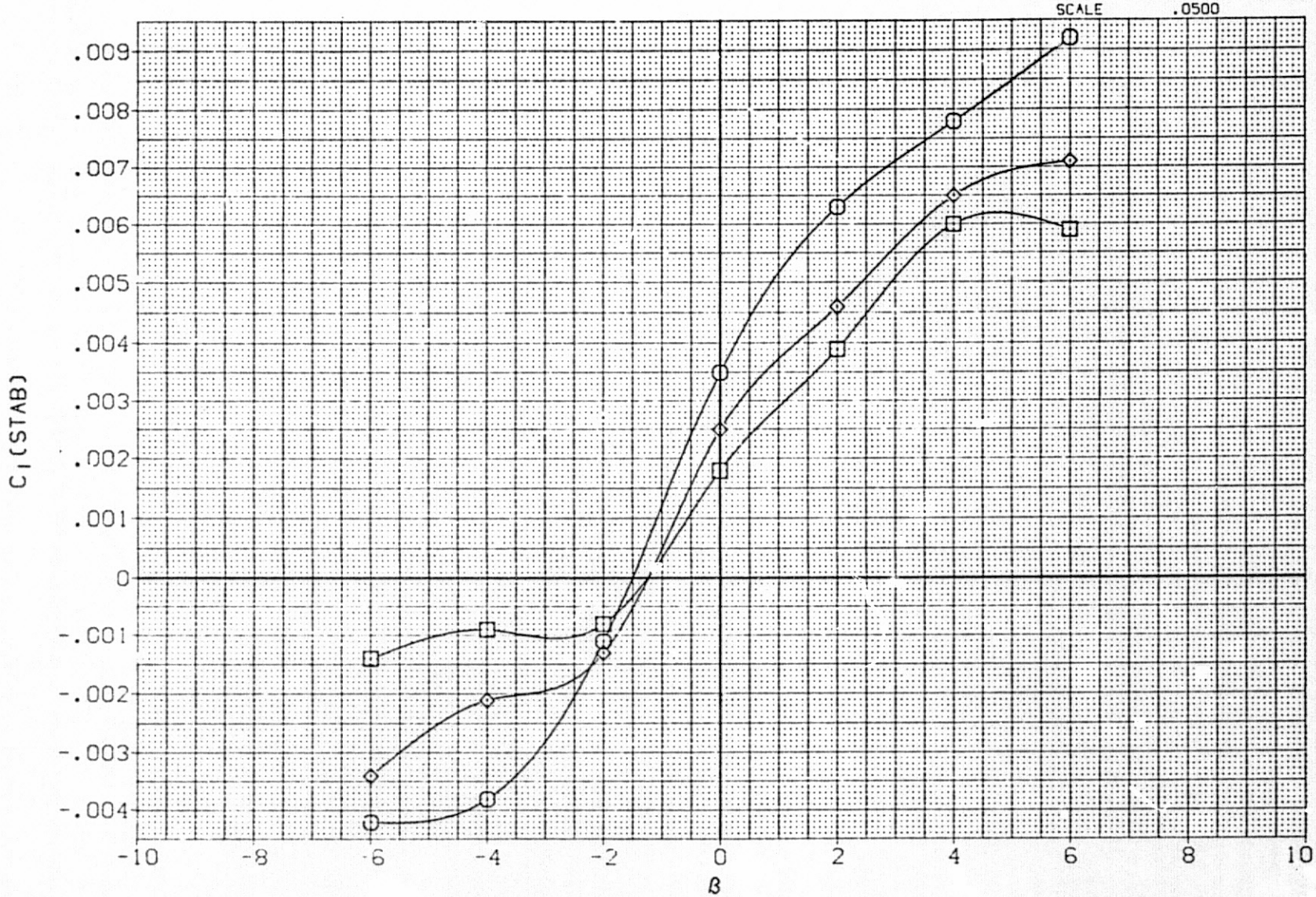

FIG 25 LATERAL-DIRECTIONAL EFFECTS OF HORIZONTAL TAILS AT ZERO INCIDENCE IN POSITION 2 FOR CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACrr
(AFH002)	□	W2B1V1	.000	.067
(RFH027)	○	W2B1V1SC1	.000	.067
(RFH031)	◇	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XØ
YMRP	.0000	IN. YØ
ZMRP	400.0000	IN. ZØ
SCALE	.0500	

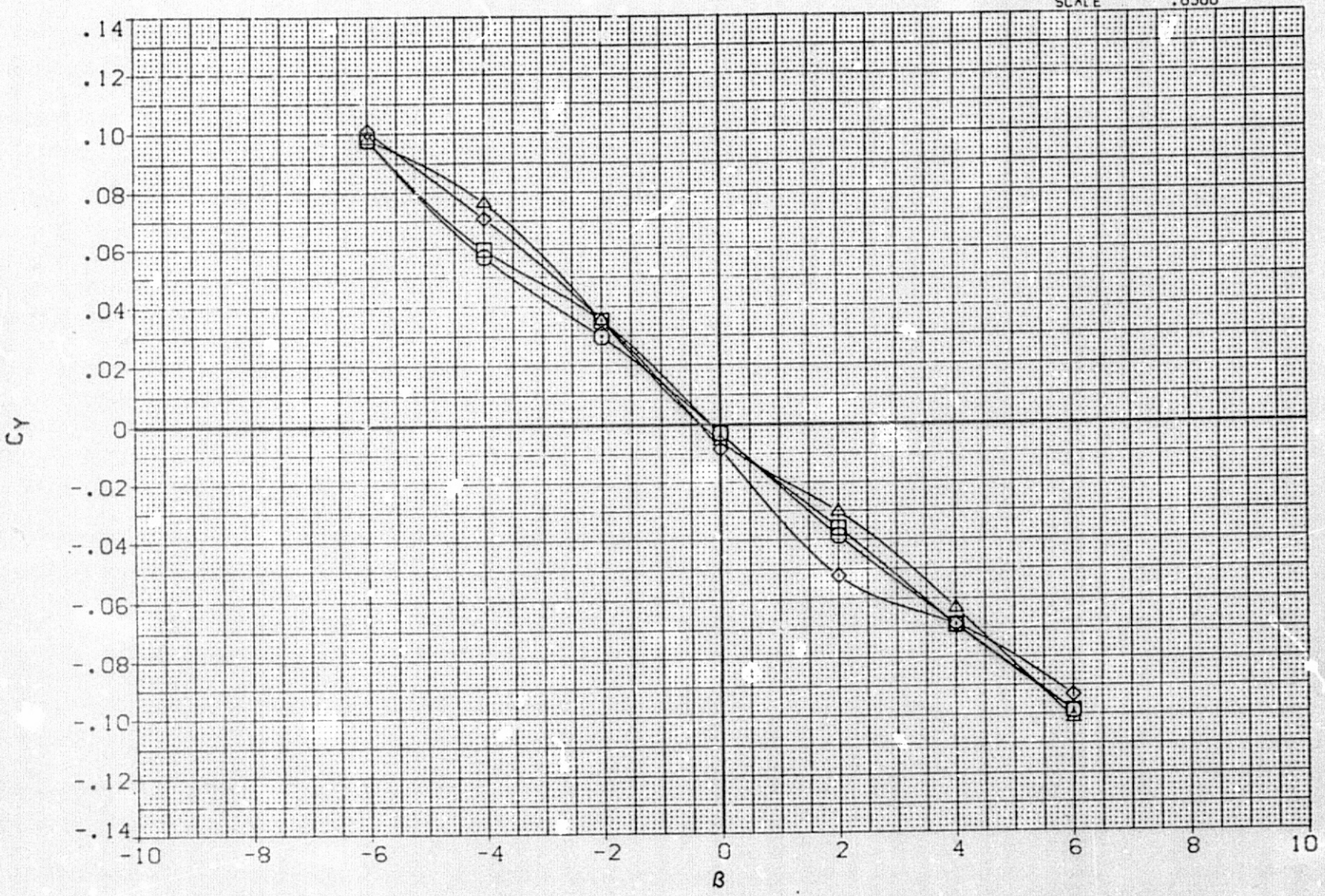

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH027)	□	W2B1V1SC1	.000	.067
(RFH031)	◇	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XC
YMRP	.0000	IN. YC
ZMRP	400.0000	IN. ZC
SCALE	.0500	

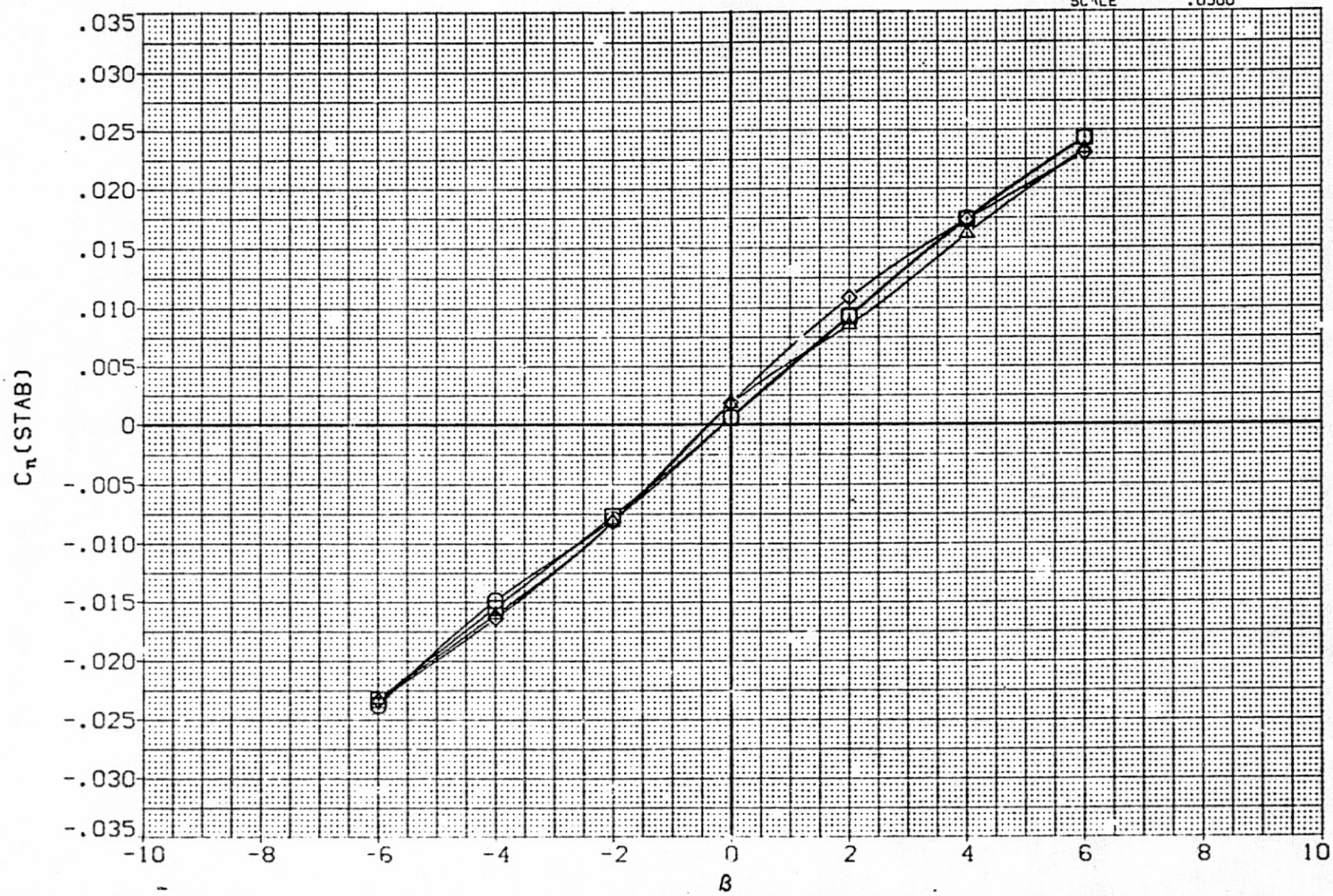

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH027)	□	W2B1V1SC1	.000	.067
(RFH031)	◇	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

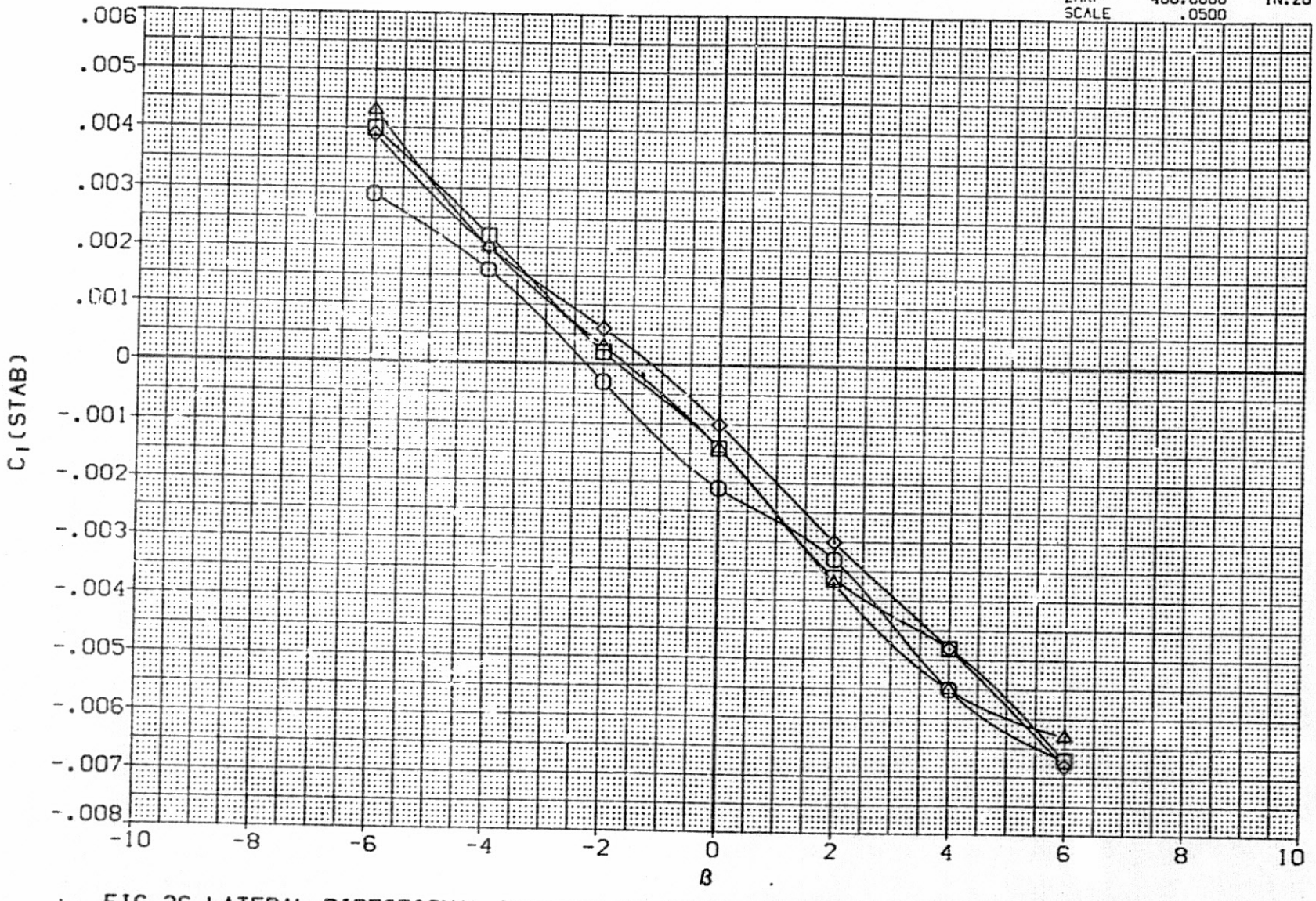

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH027)	□	W2B1V1SC1	.000	.067
(RFH031)	◇	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

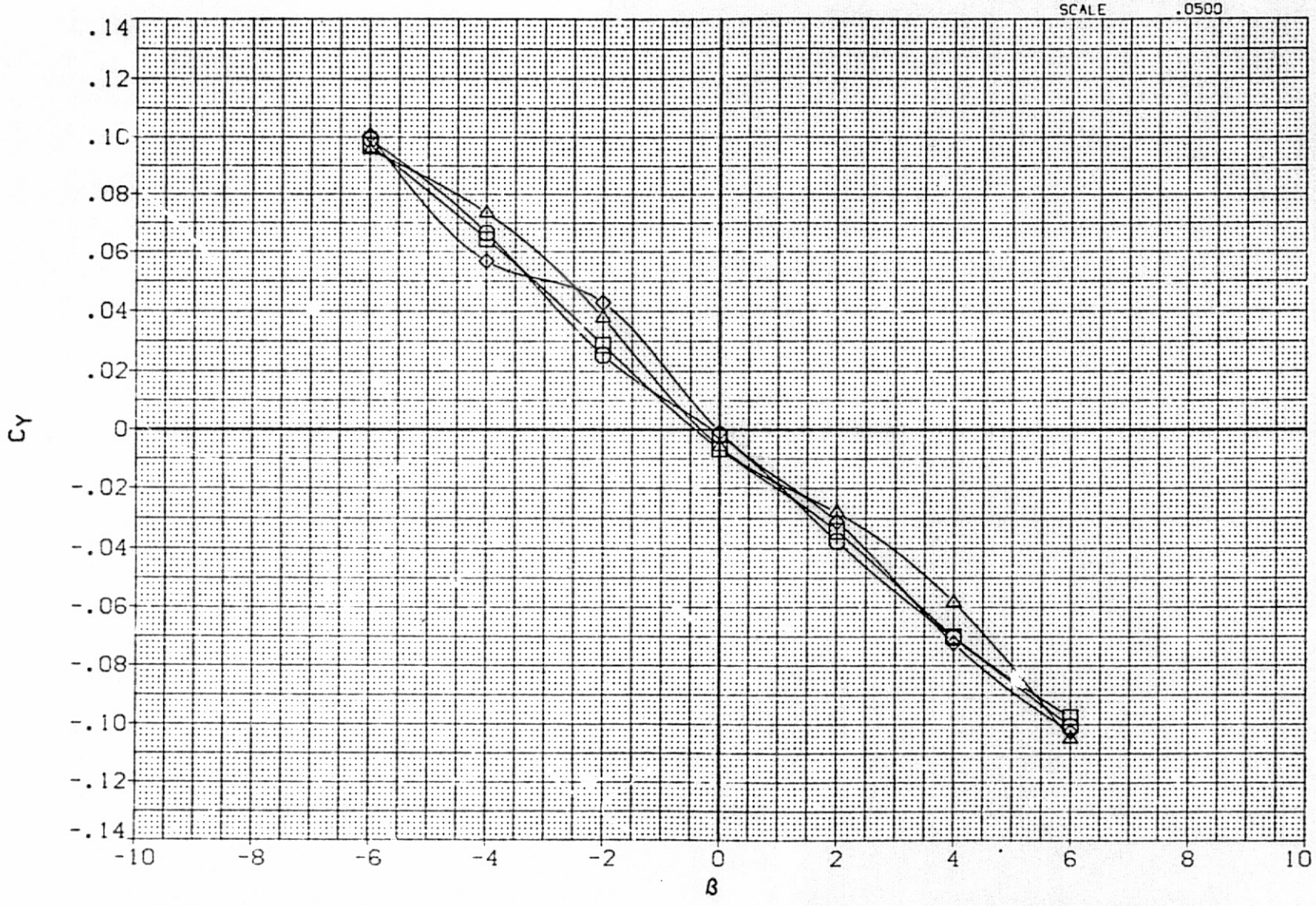

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH027)	□	W2B1V1SC1	.000	.067
(RFH031)	⋈	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

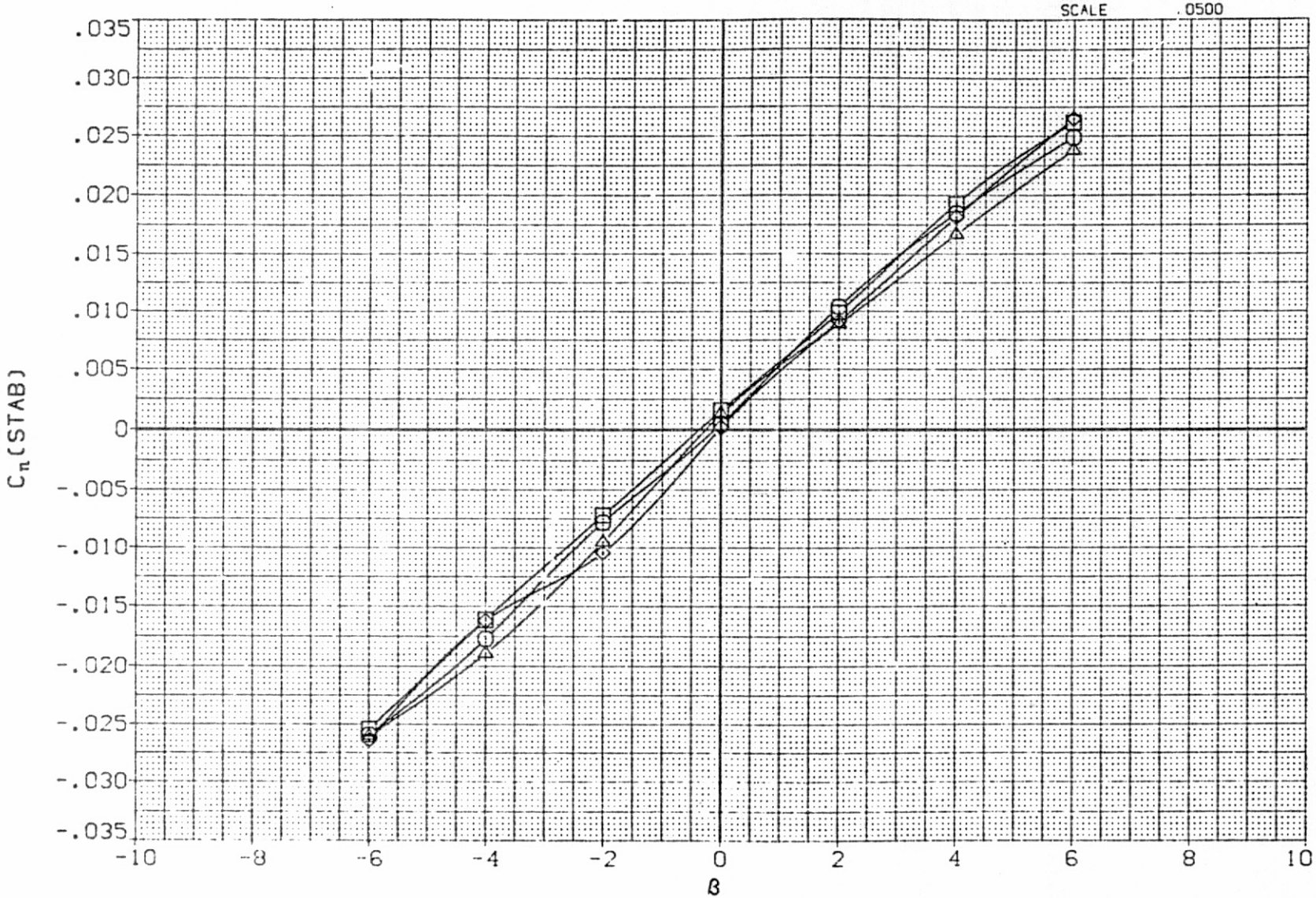

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(AFH002)	○	W2B1V1
(RFH027)	□	W2B1V1SC1
(RFH031)	◇	W2B1V1SC2
(RFH032)	△	W2B1V1SC3

ELEVN	MACH
.000	.067
.000	.067
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

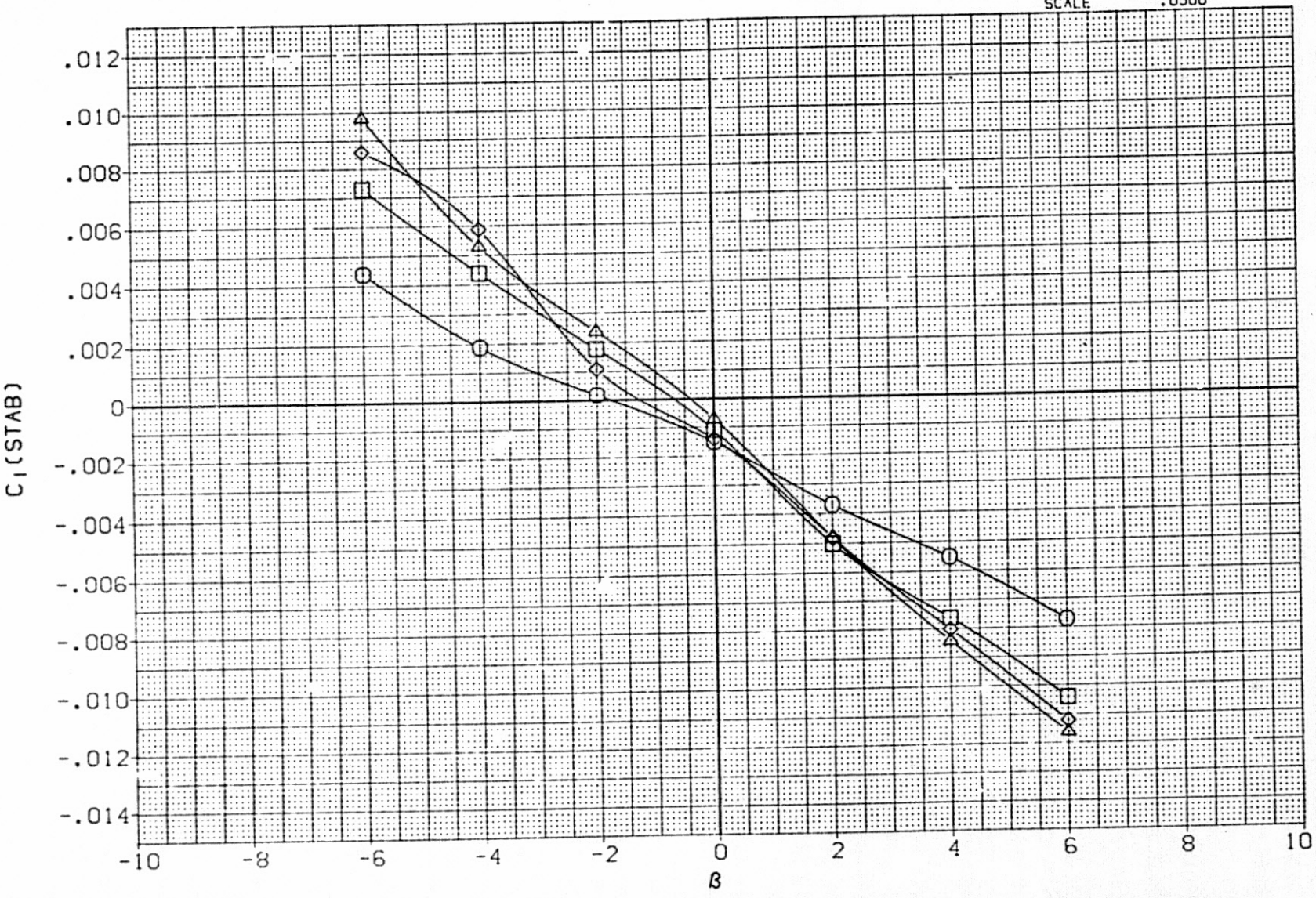

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH027)	□	W2B1V1SC1	.000	.067
(RFH031)	◇	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

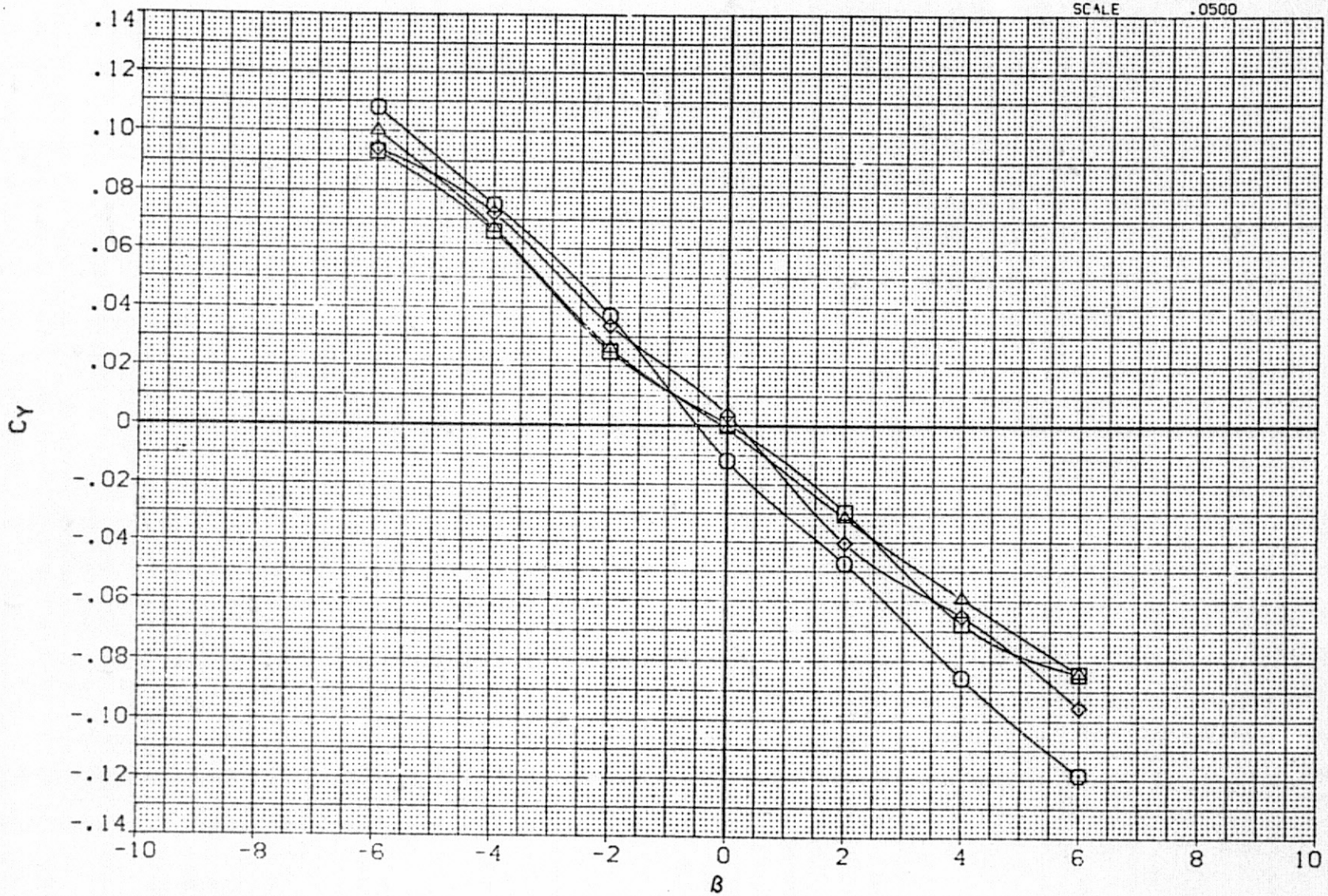

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(C)ALPHA = 20.10

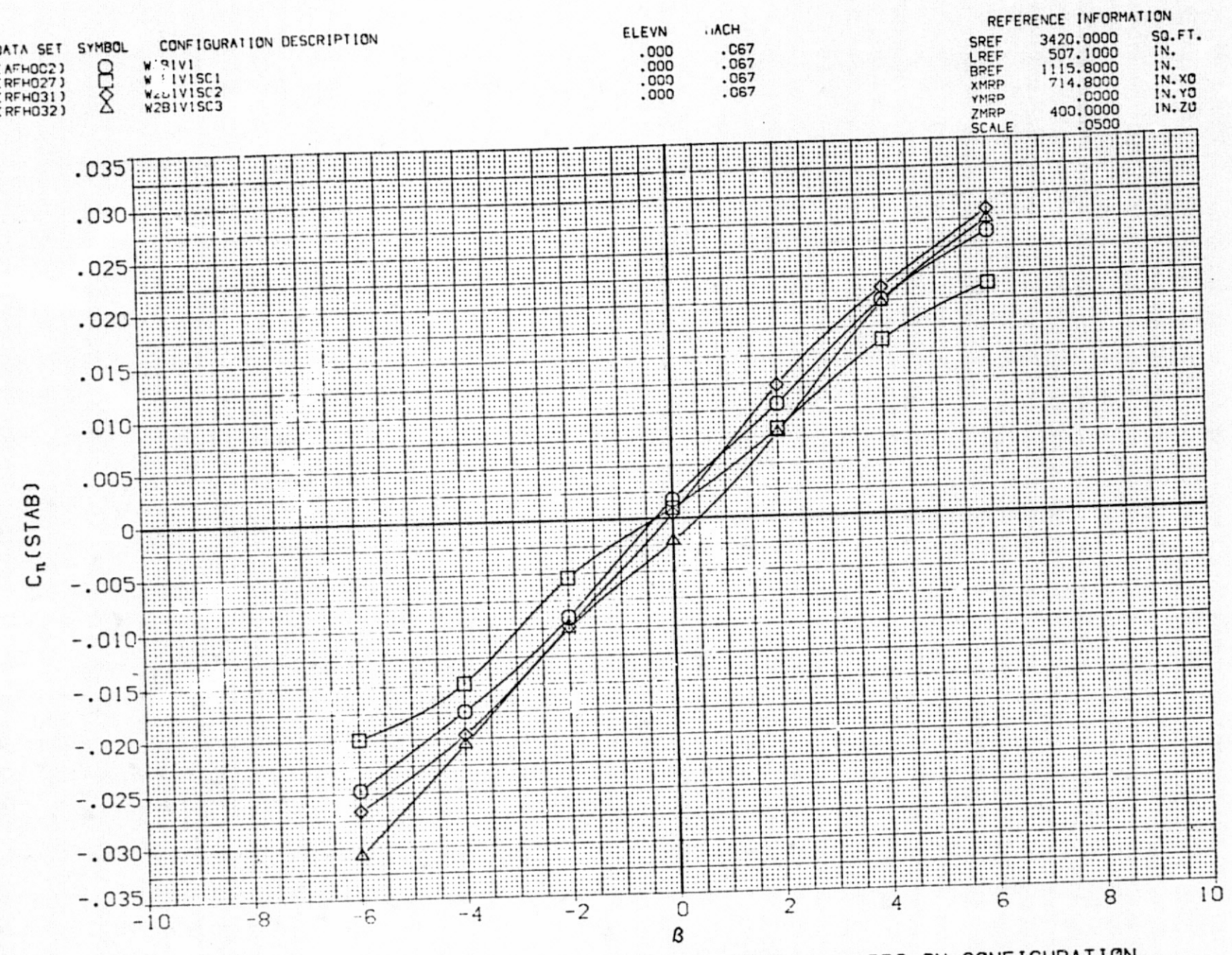

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH027)	□	W2B1V1SC1	.000	.067
(RFH031)	◇	W2B1V1SC2	.000	.067
(RFH032)	△	W2B1V1SC3	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

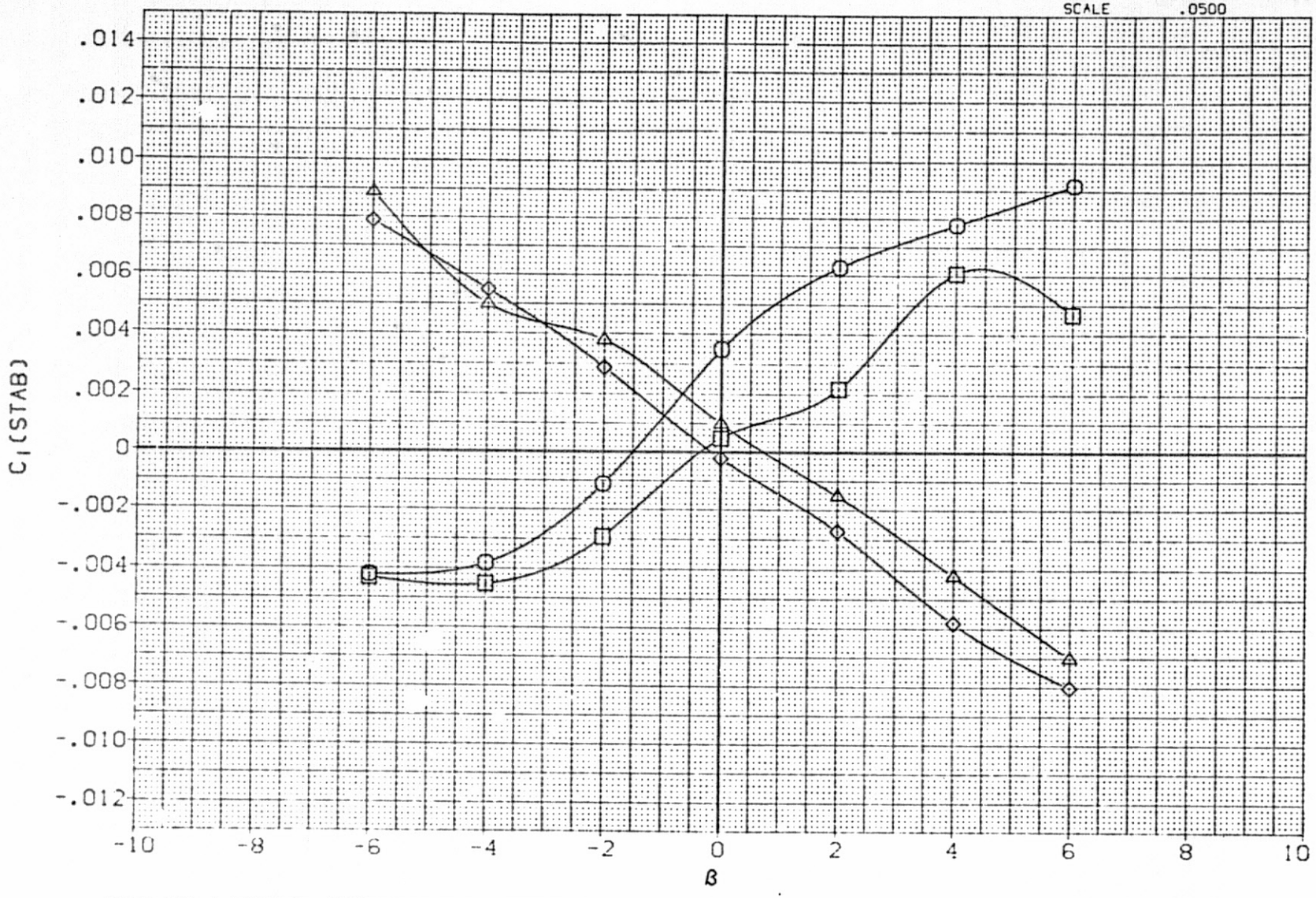

FIG 26 LATERAL-DIRECTIONAL EFFECTS OF SWITCH BLADE CANARDS ON CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

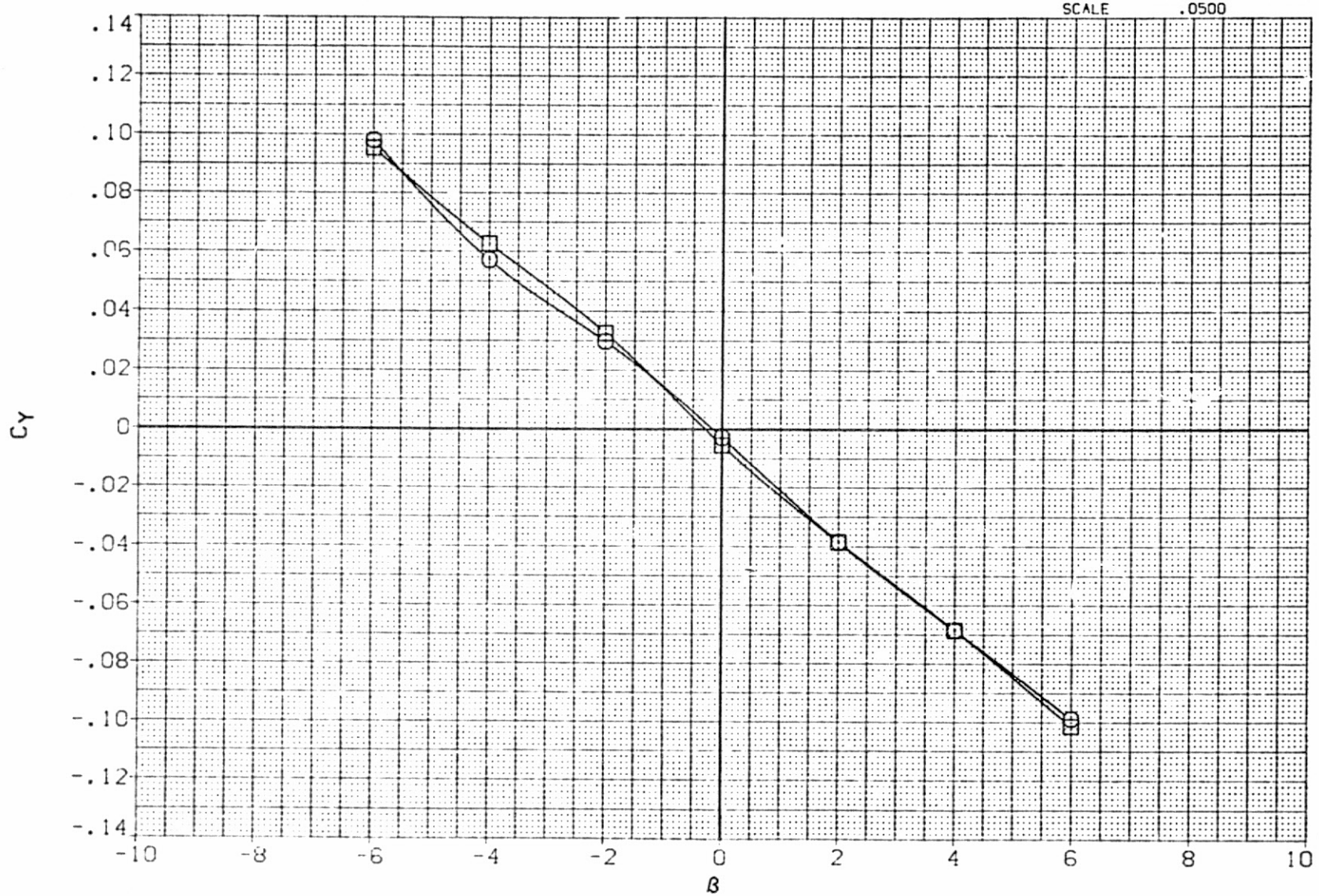

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(AFH002)	○	W2B1V1
(RFH037)	□	W2B1V1GC2

ELEVN	MACH
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

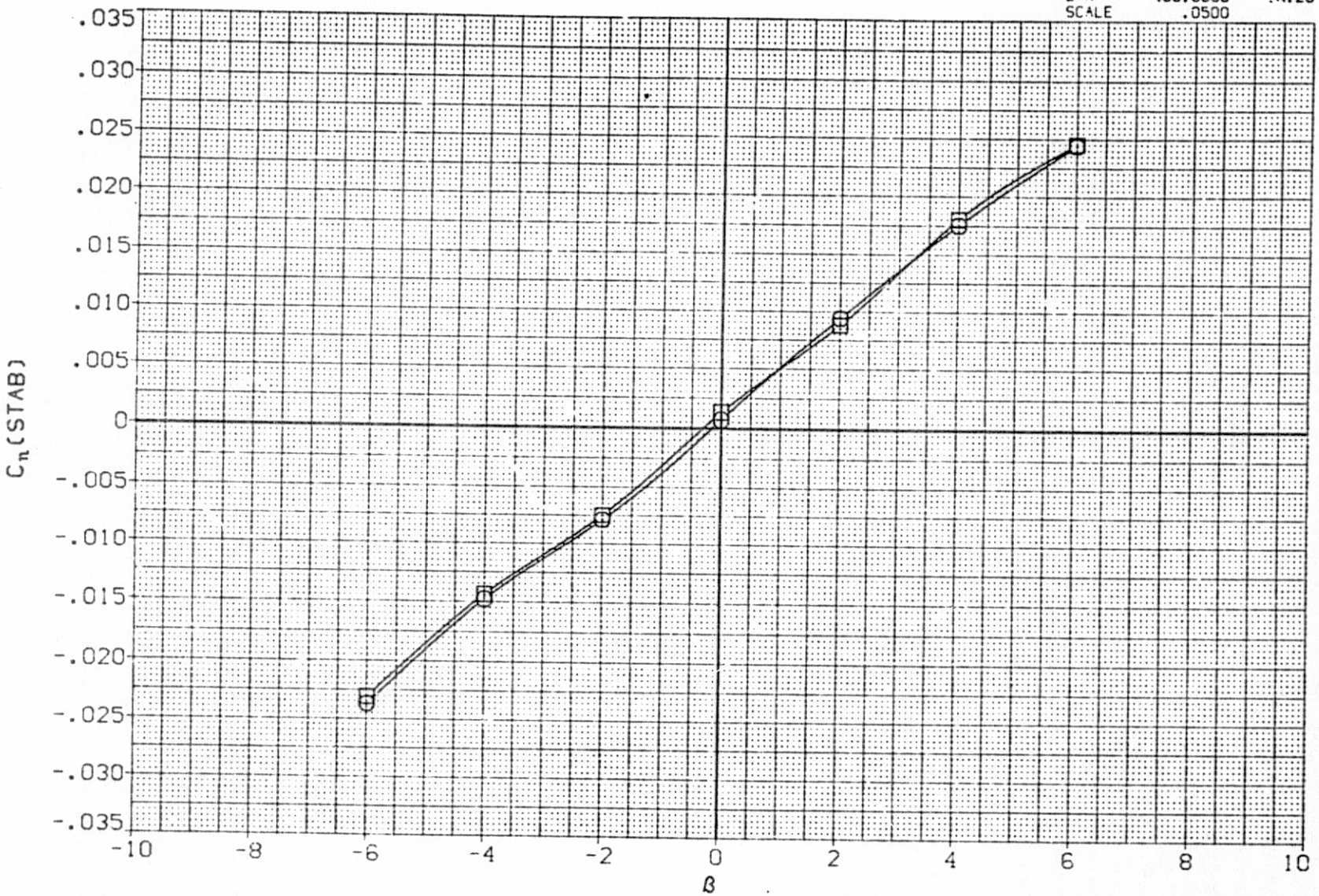

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

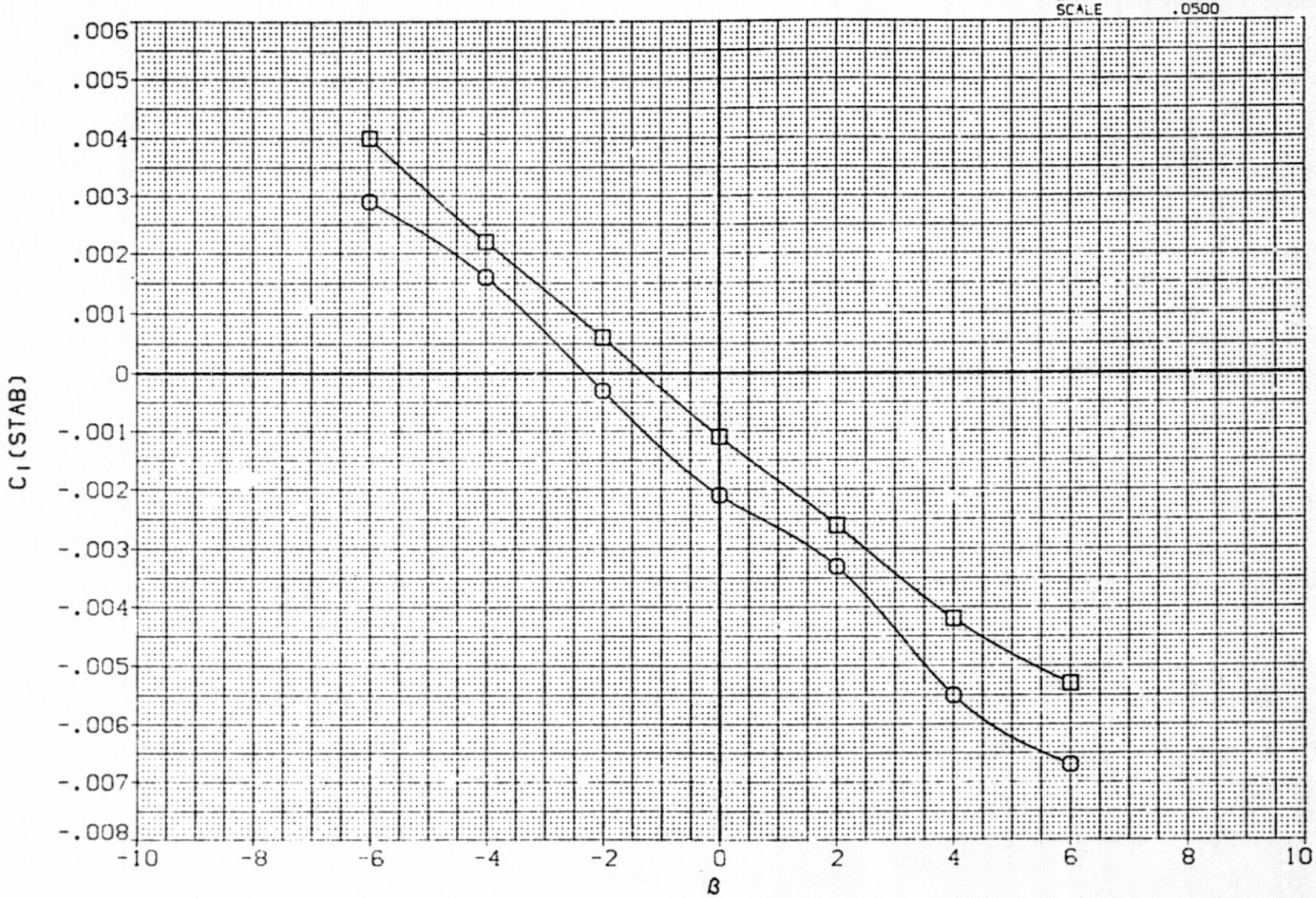

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(AFH002)	○	W2B1V1
(RFH037)	□	W2B1V1GC2

ELEVN	MACH
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

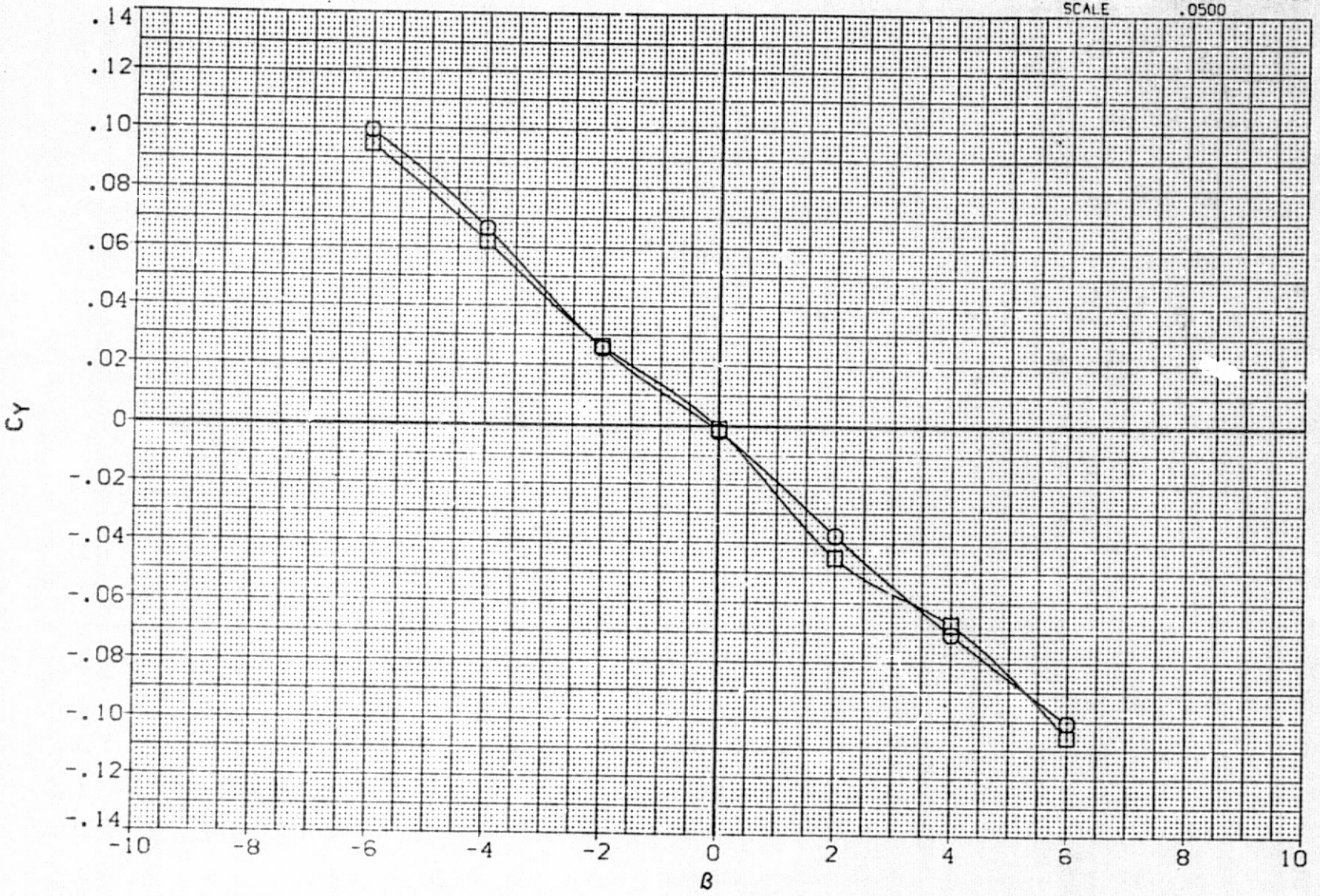

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

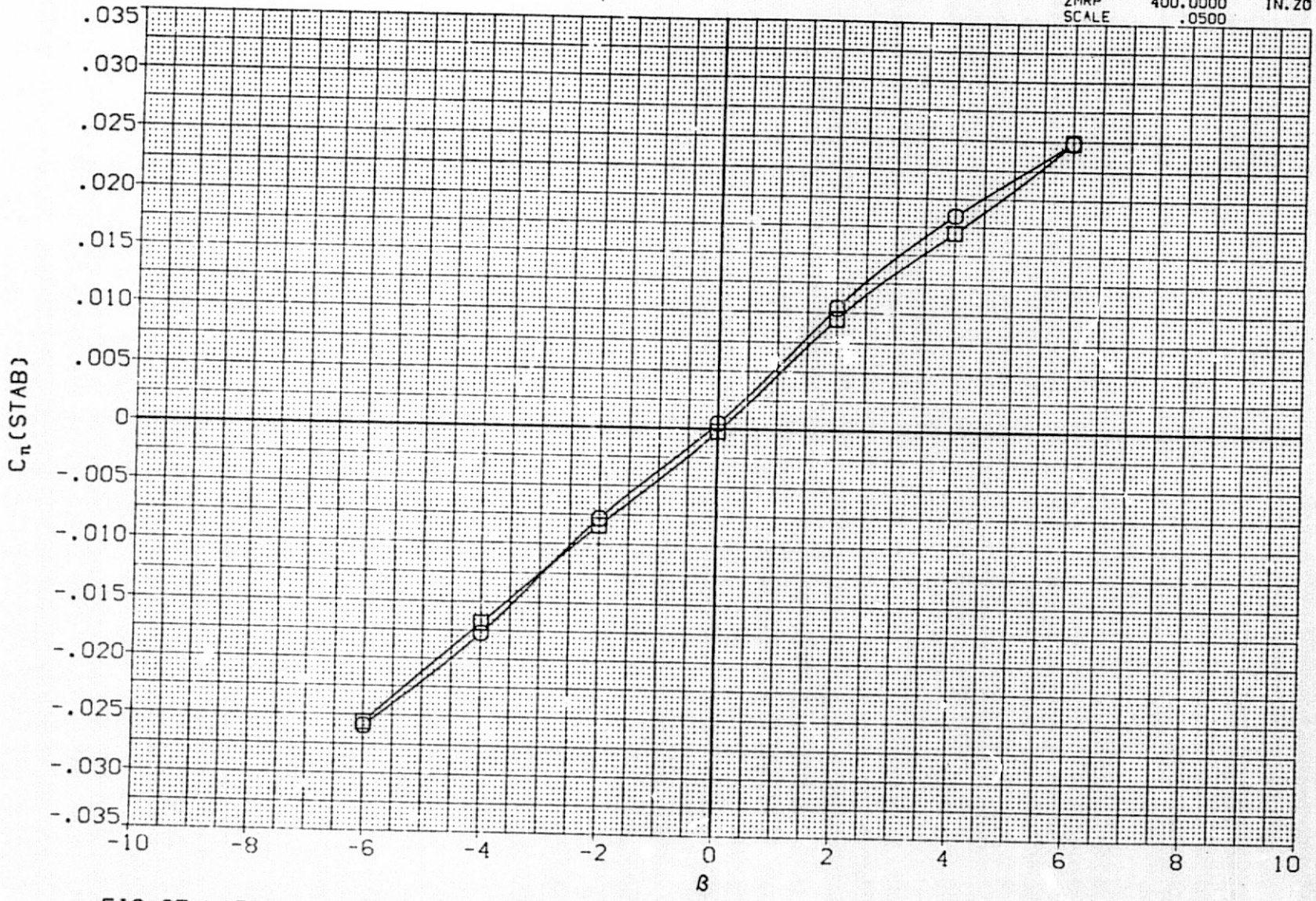

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

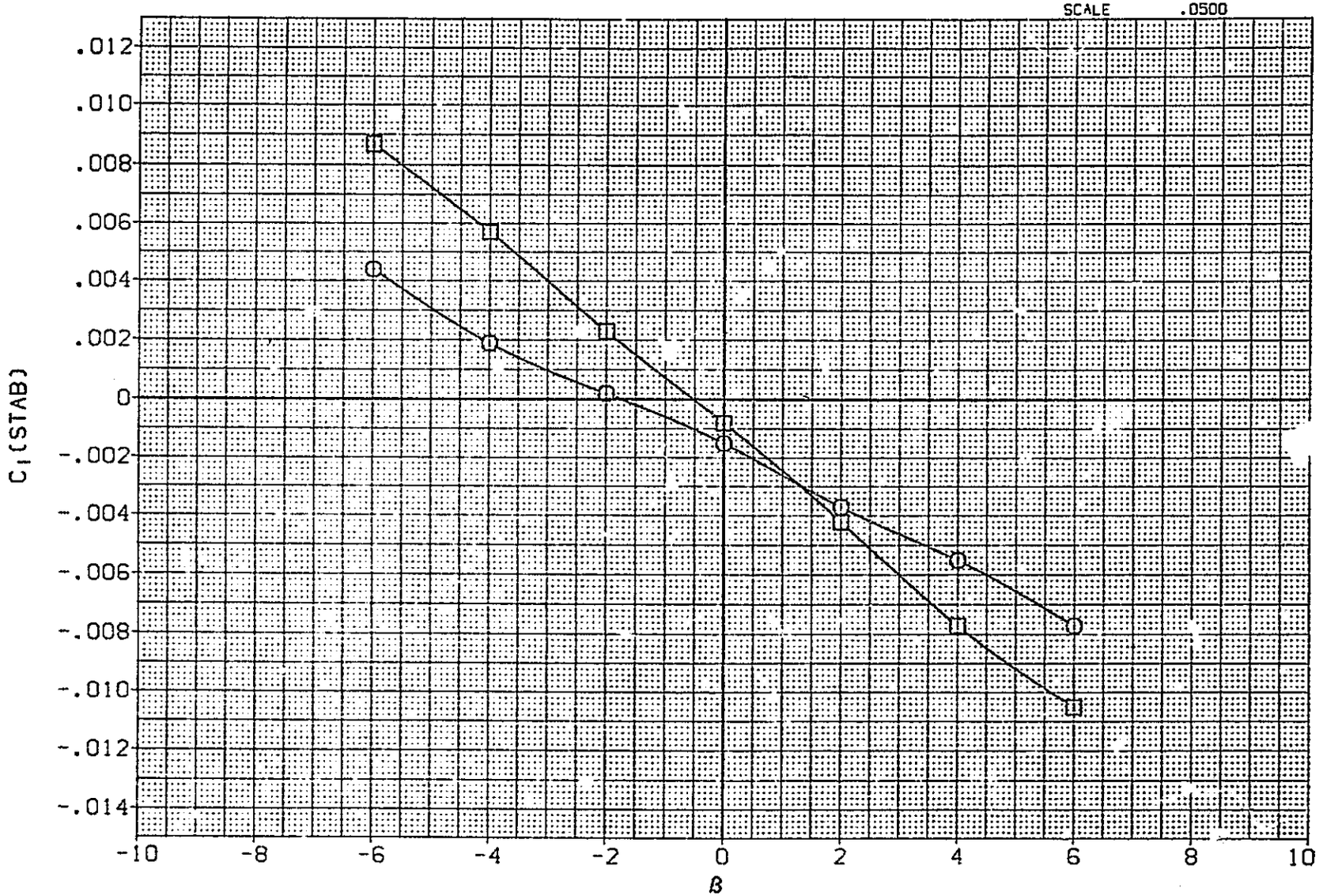

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

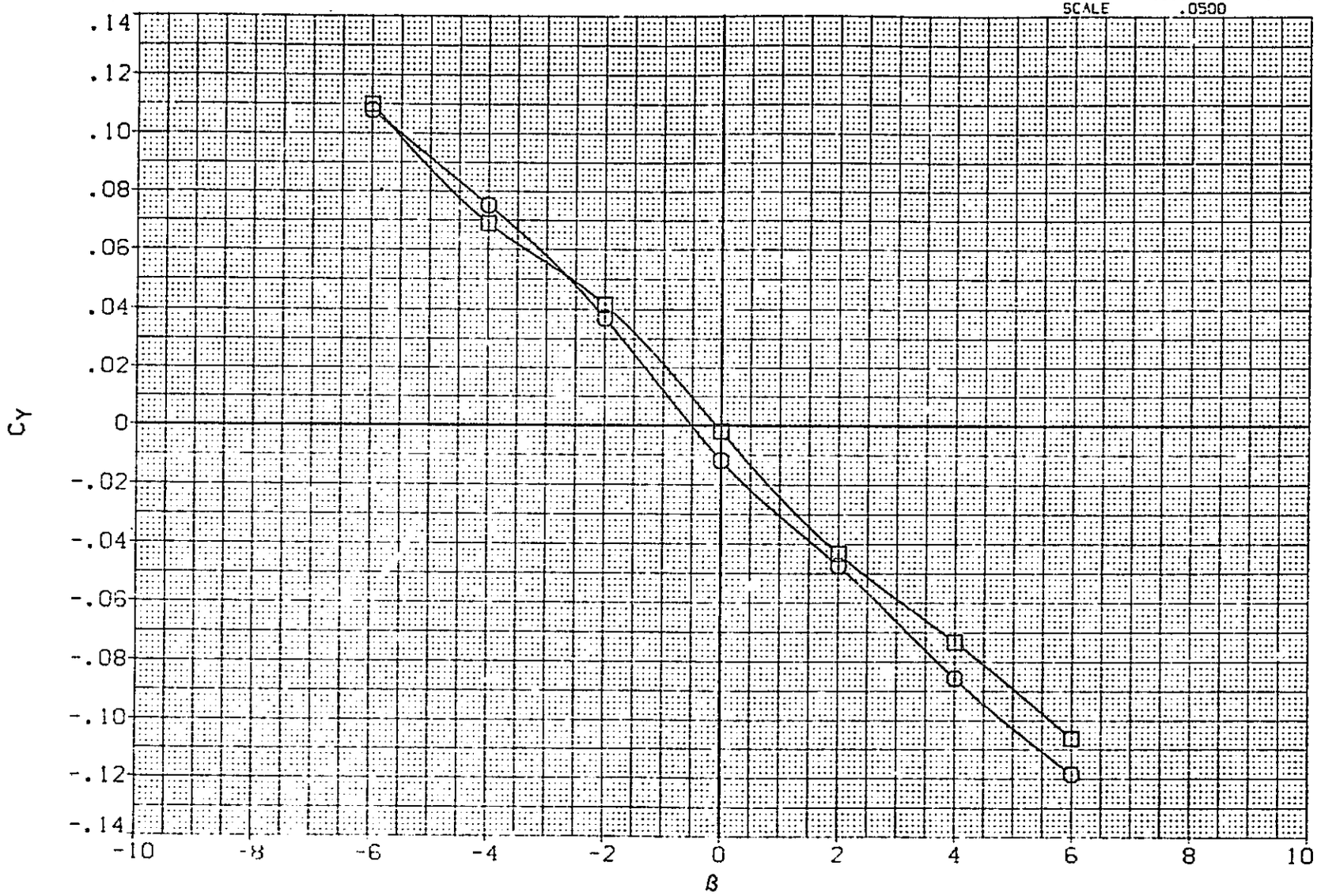

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1VIGC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

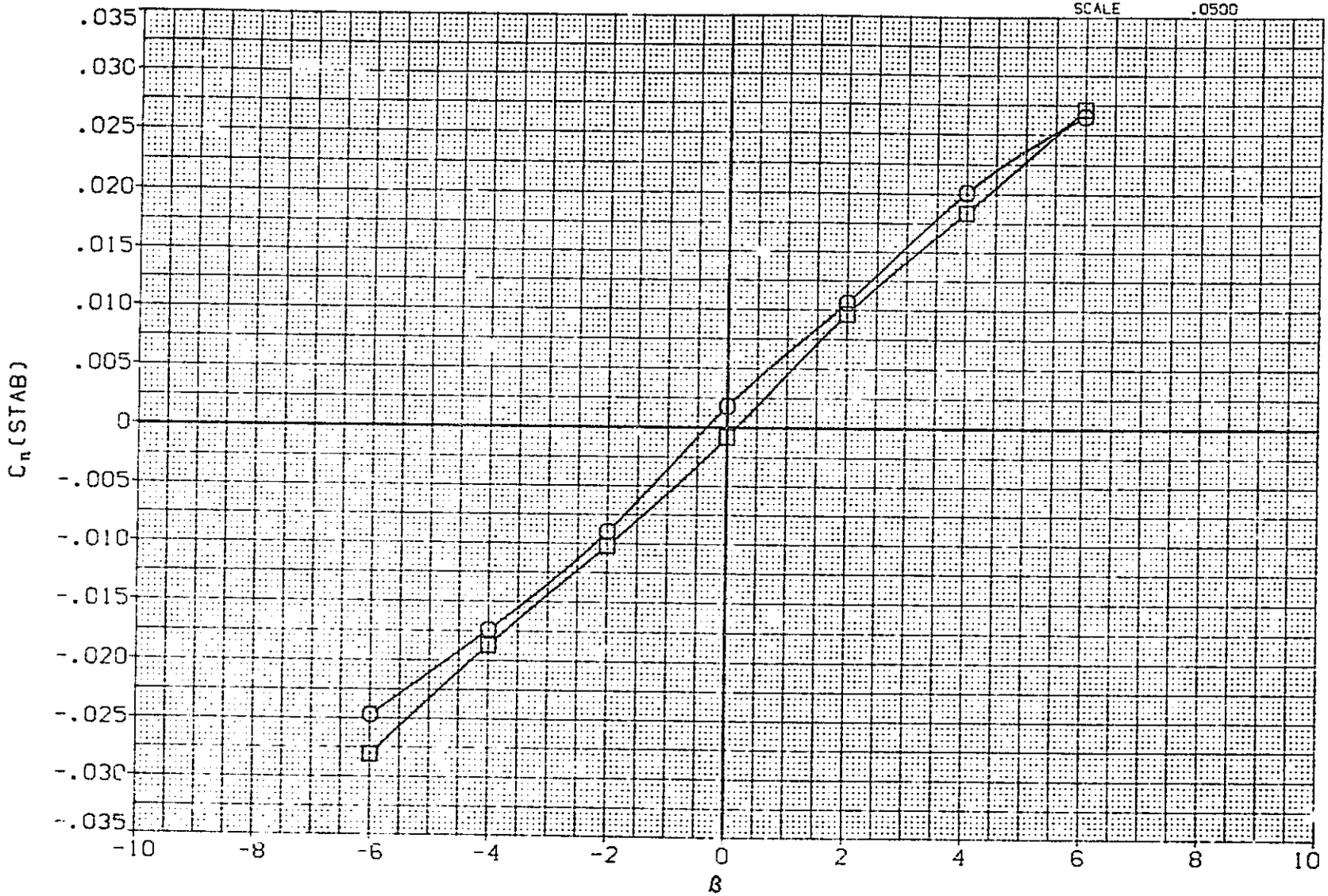

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(AFH002)	○	W2B1V1	.000	.067
(RFH037)	□	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

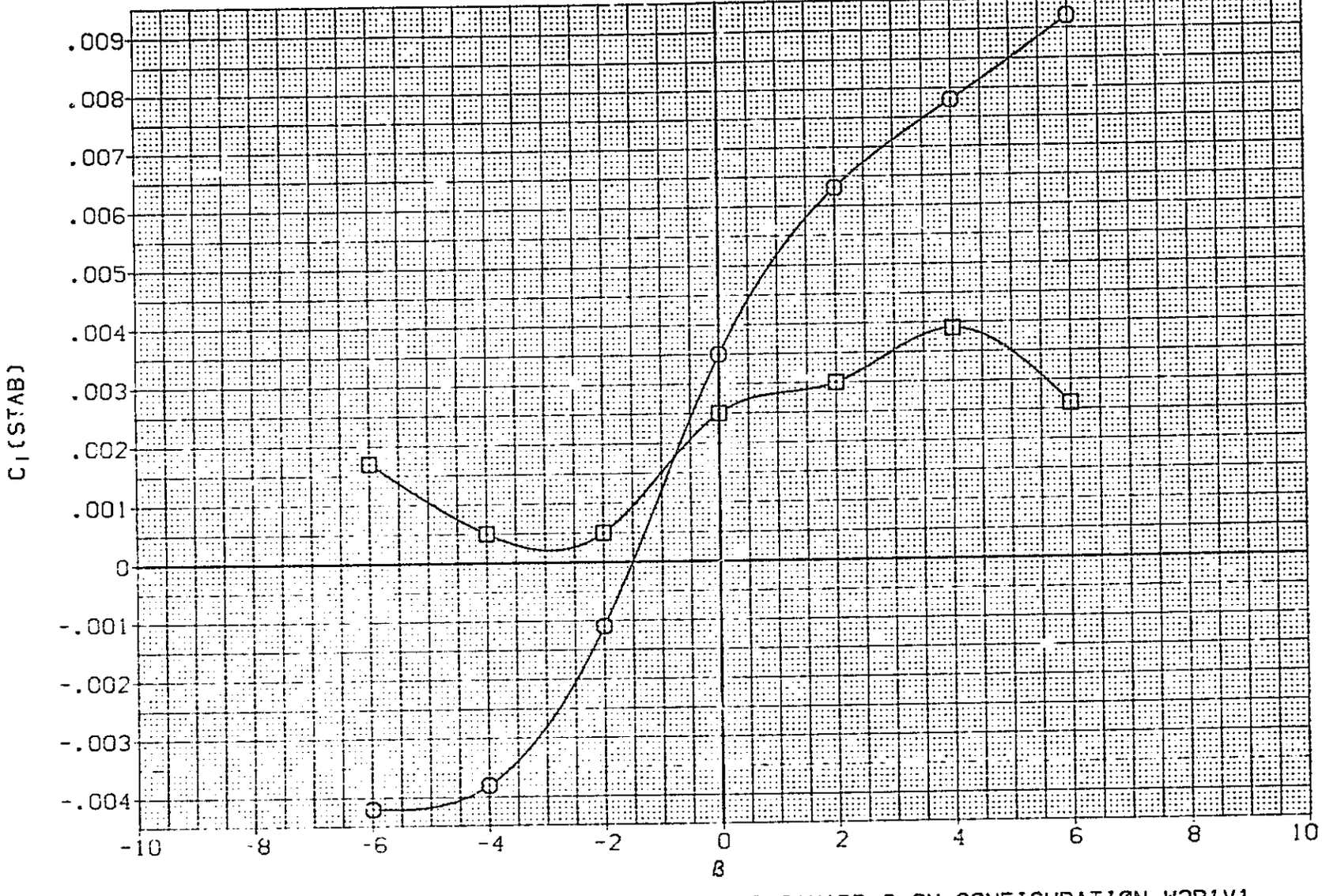

FIG 27 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W2B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH042)	○	W1B1V1	.000	.067
(RFH048)	□	W1B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

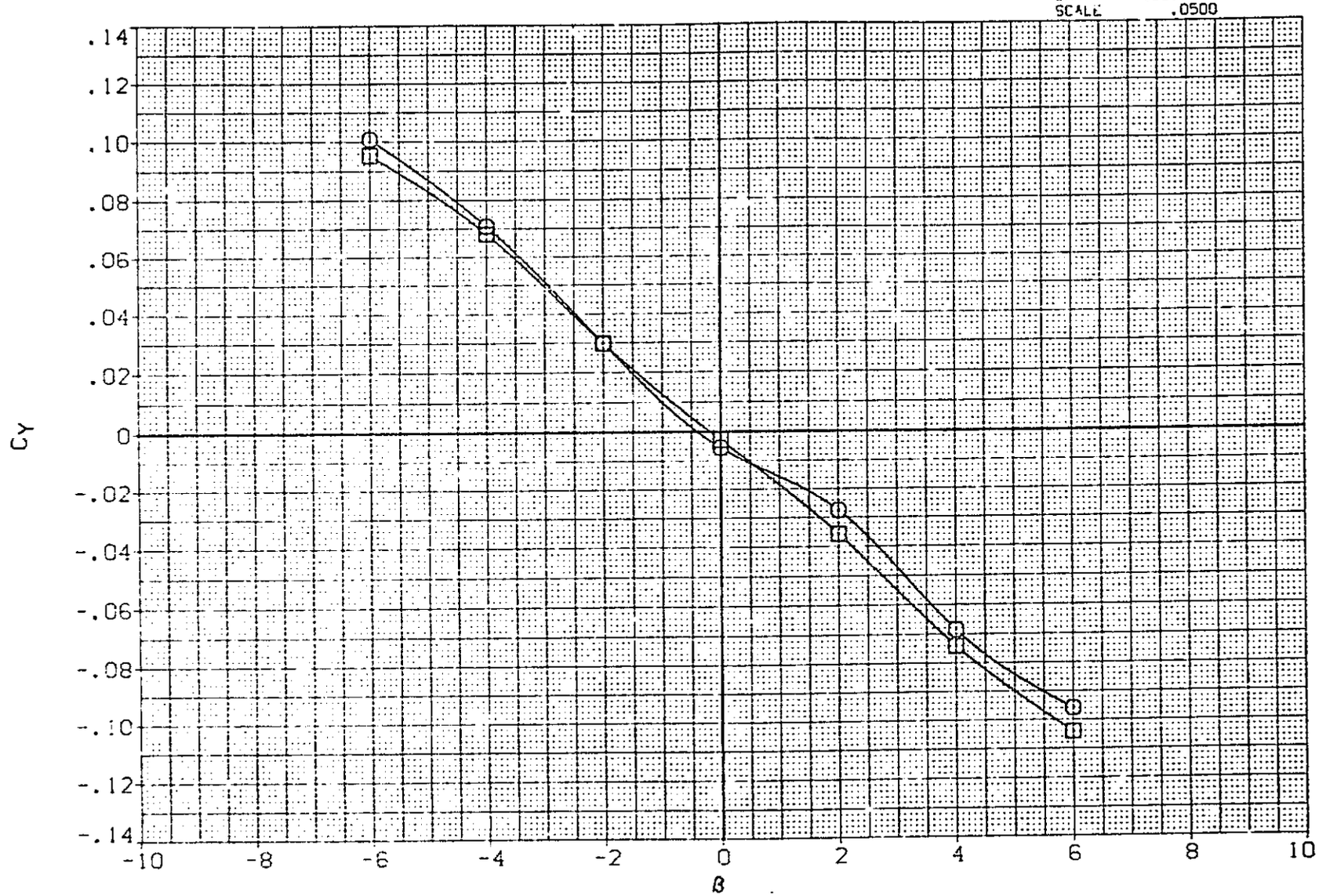

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(A)ALPHA = .00

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RFH042) W1B1V1
(RFH048) W1B1V1GC2

ELEVN	MACH
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

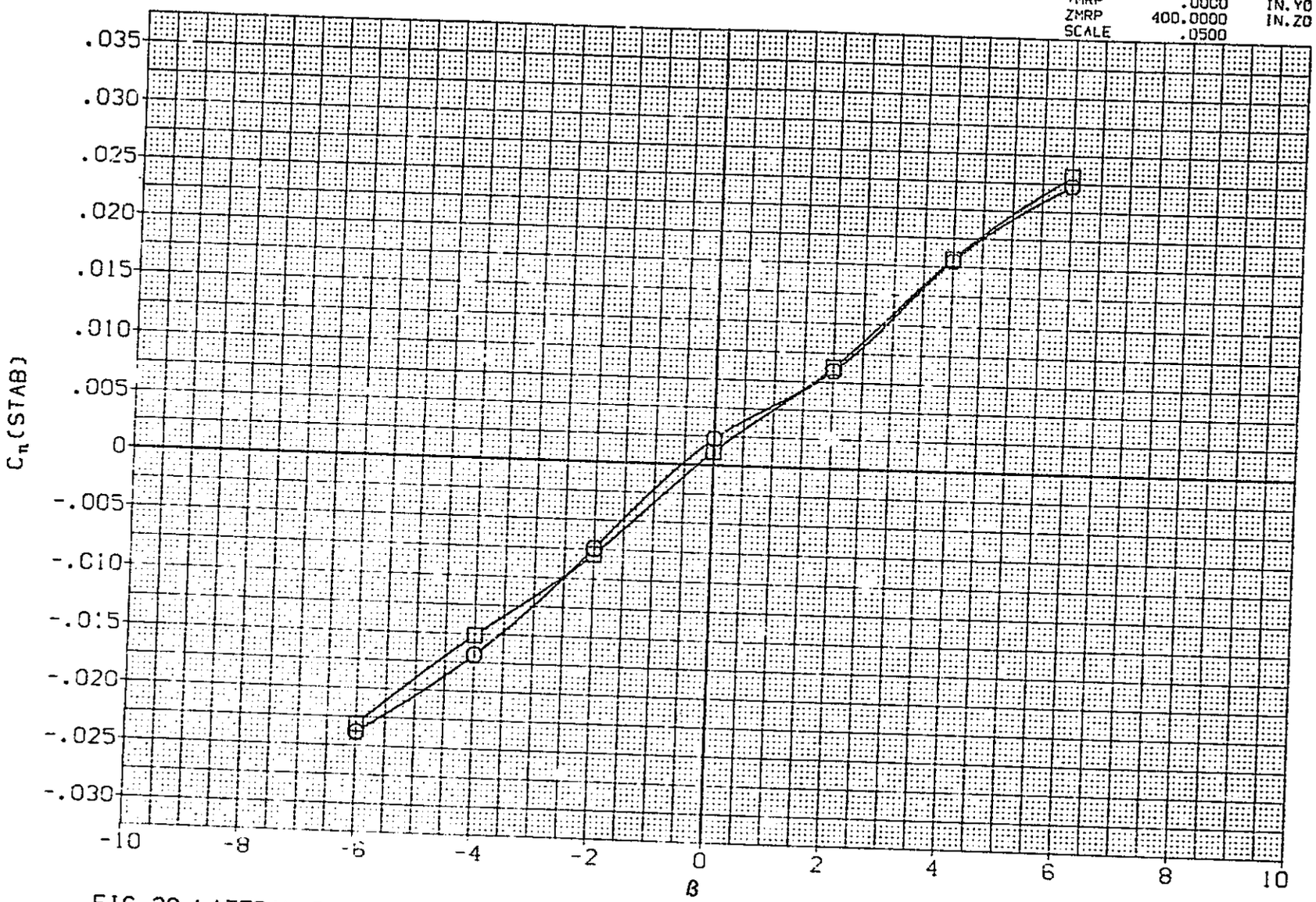

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH042)	○	W1B1V1
(RFH048)	□	W1B1V1GC2

ELEVN	MACH
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

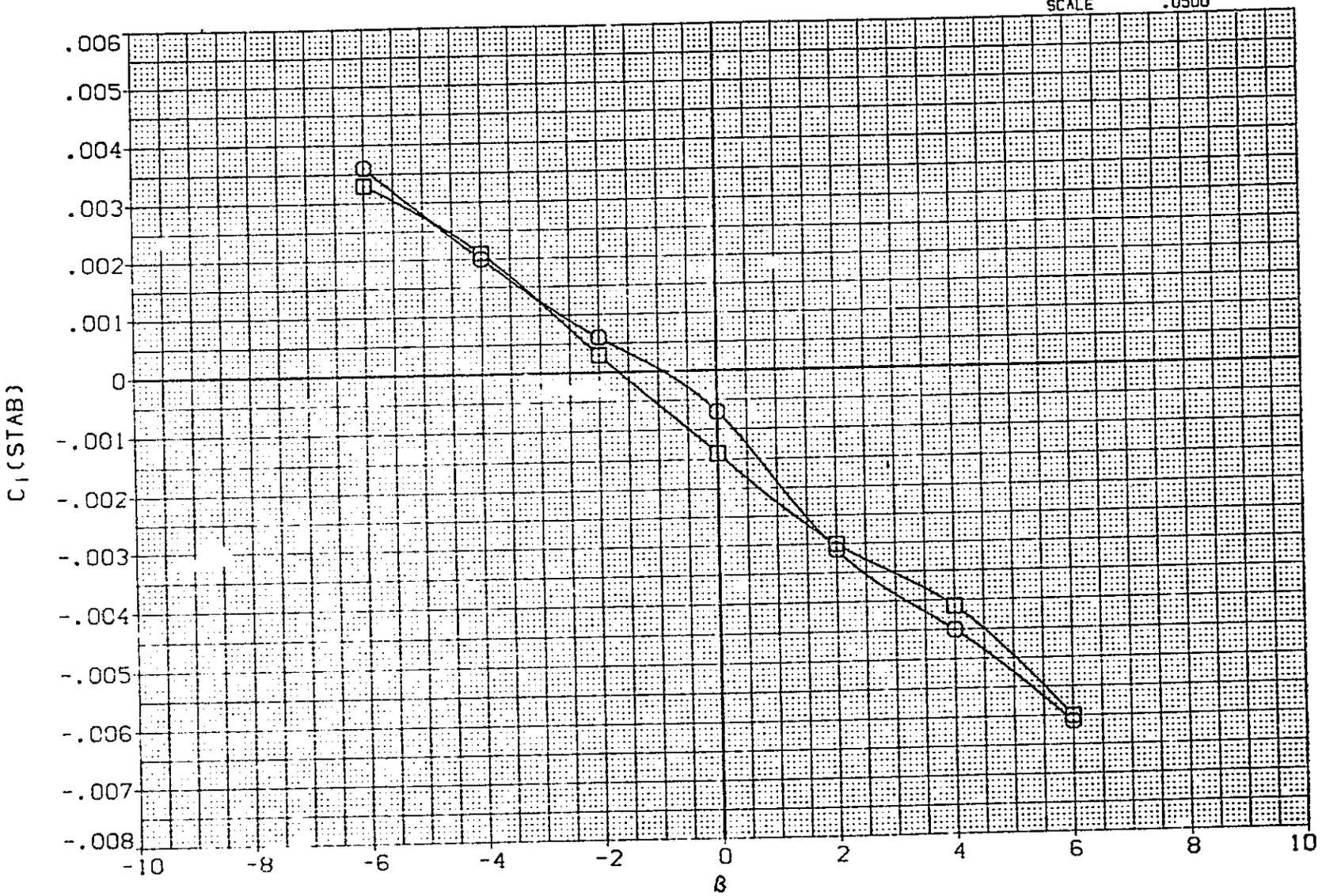

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH042)	○	W1B1V1
(RFH048)	□	W1B1V1GC2

ELEVN	MACH
.000	.067
.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1300	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

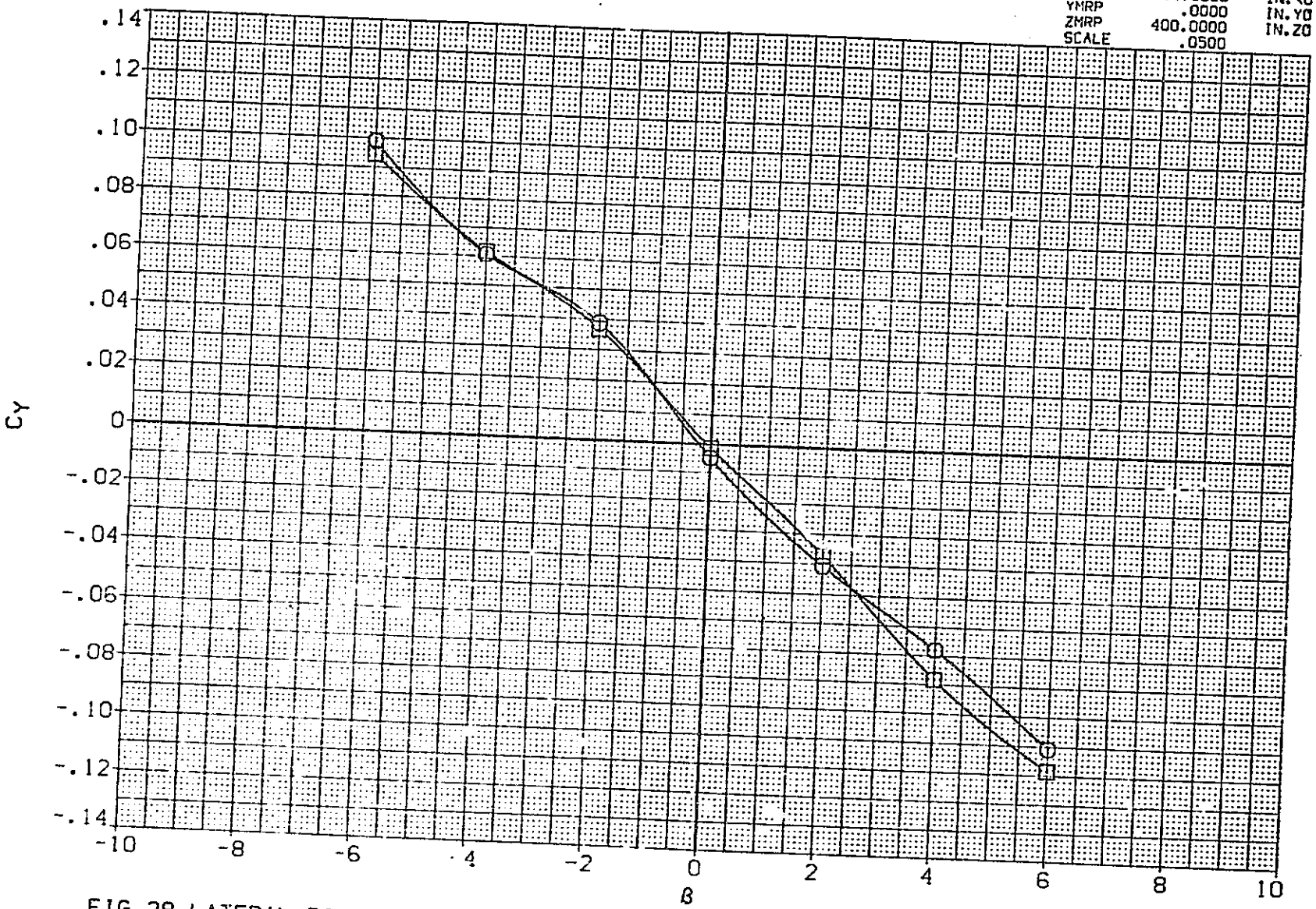

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH042)	□	W1B1V1	.000	.067
(RFH048)	□	W1B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

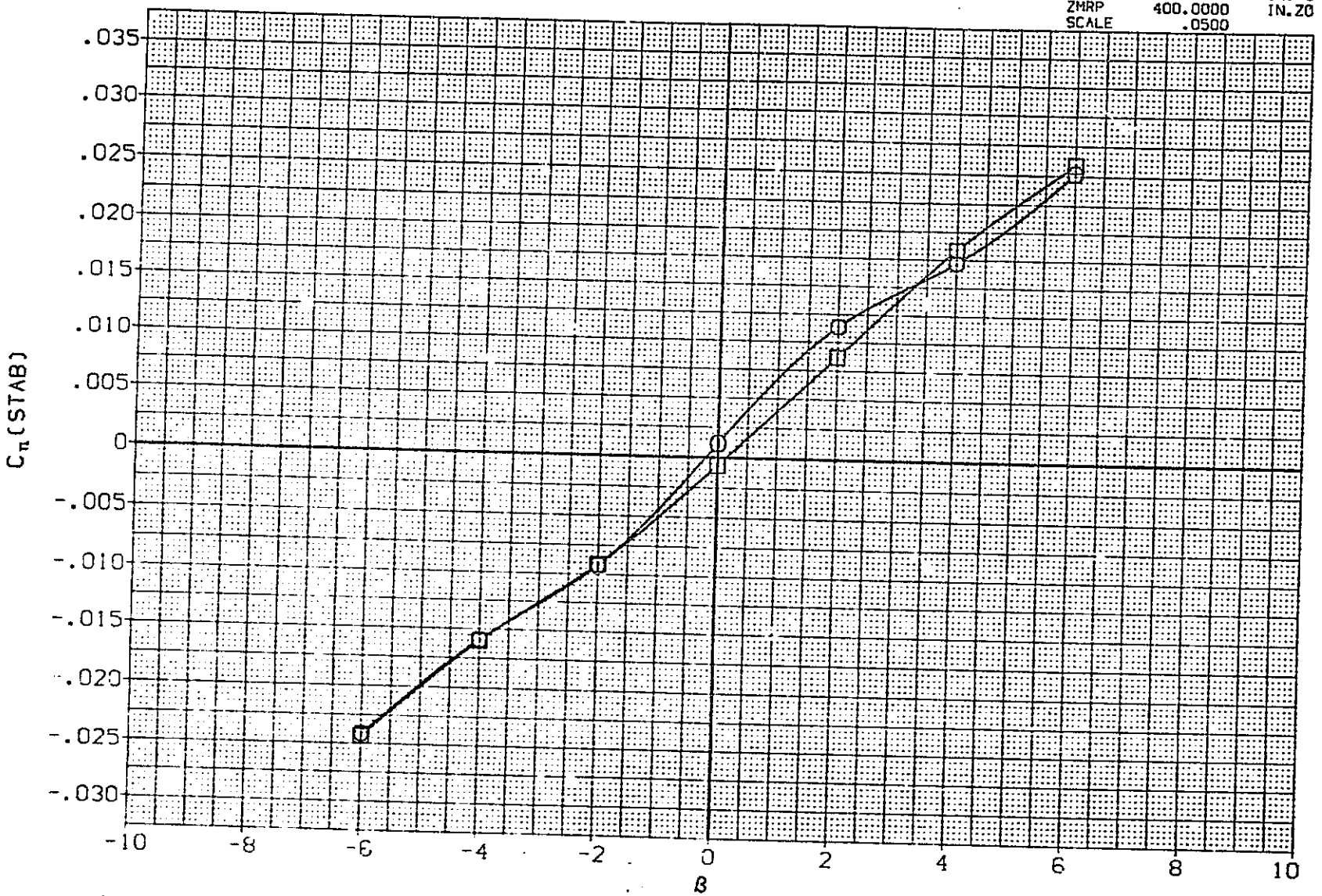

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH042)	○	W1B1V1	.000	.067
(RFH048)	□	W1B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

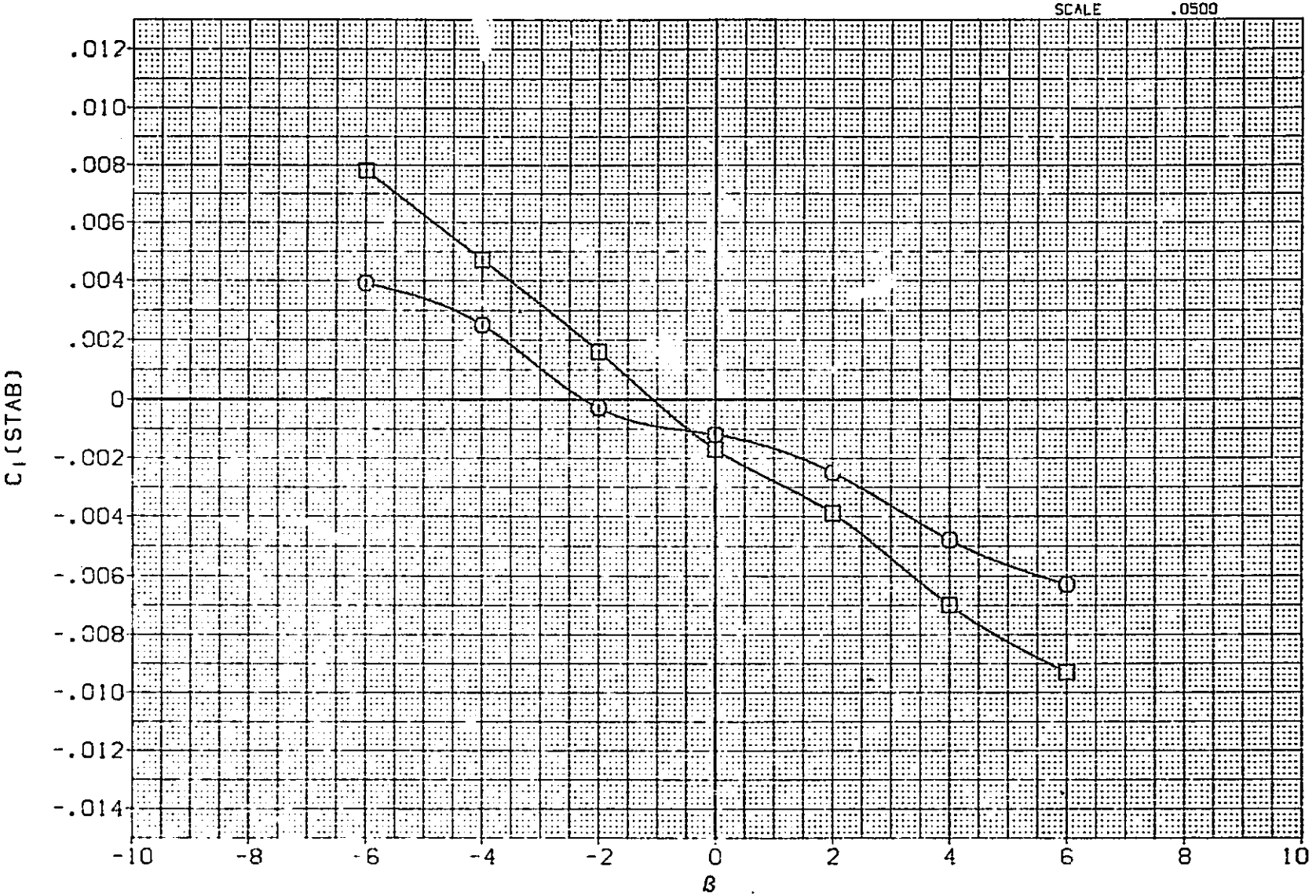

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH042)	○	W1B1V1	.000	.067
(RFH048)	□	W1B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

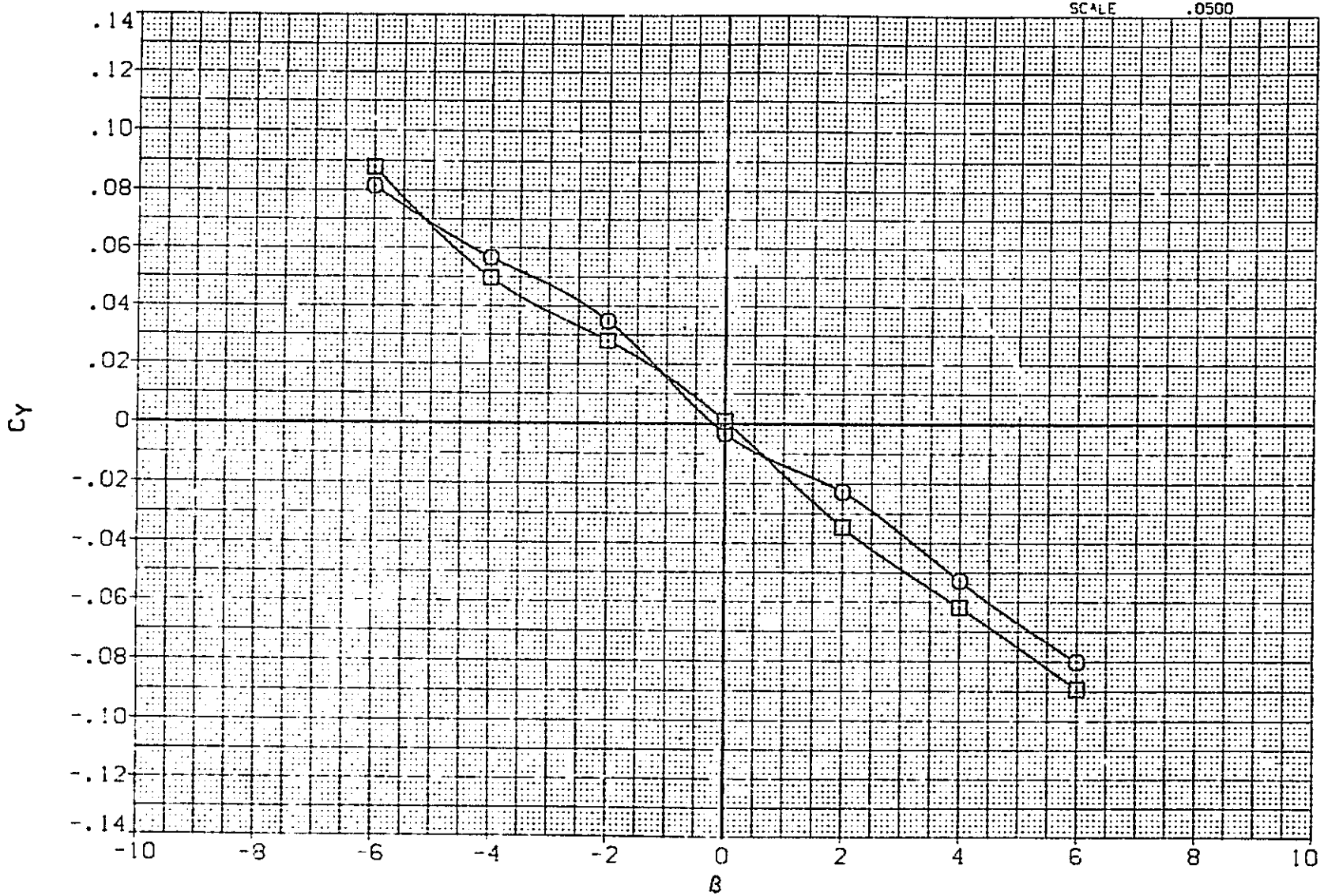

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH042)	○	W1B1V1	.000	.067
(RFH048)	□	W1B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

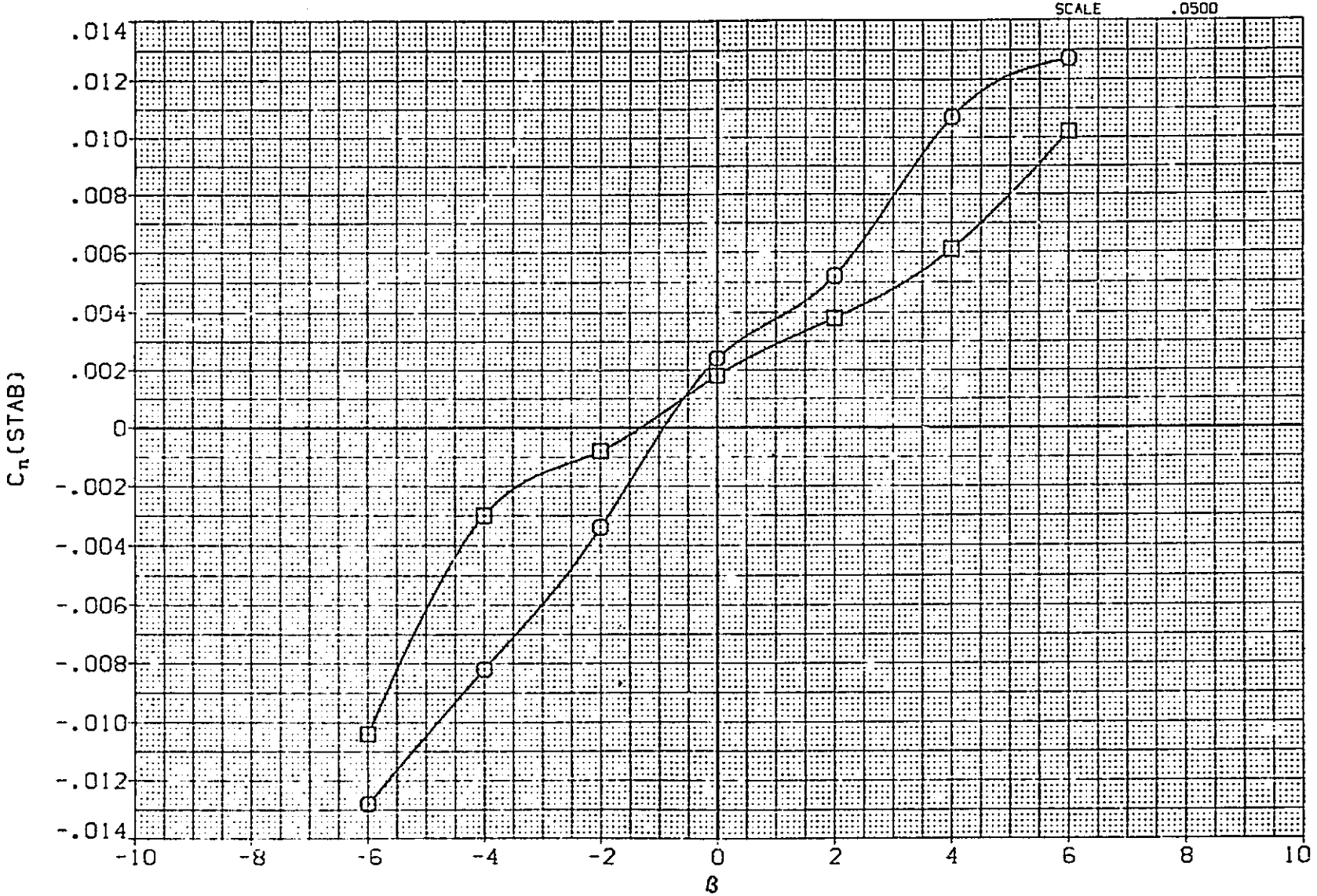

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(RFH042)	□	W1B1V1	.000	.067
(RFH048)	□	W1B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.9000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

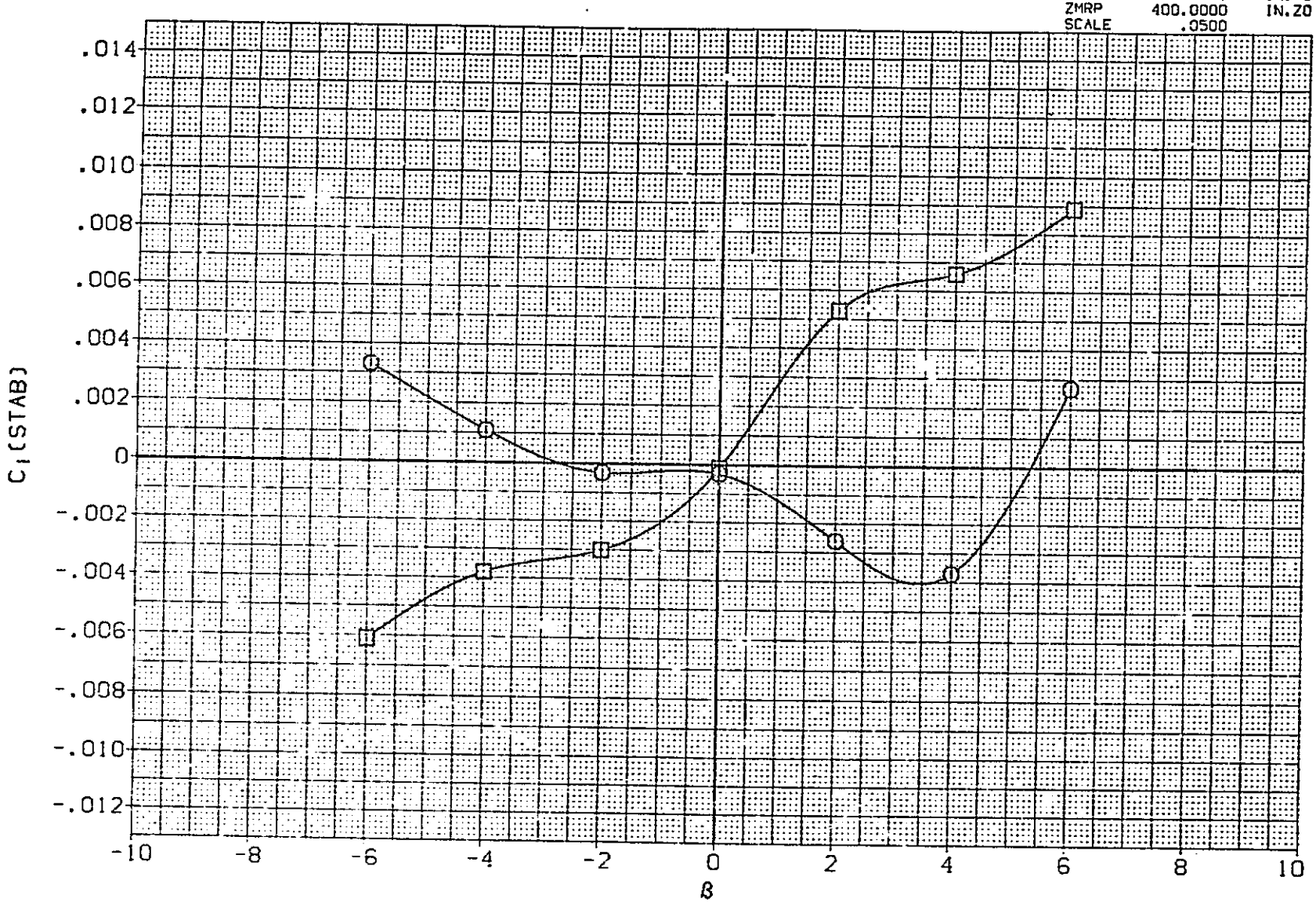

FIG 28 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 ON CONFIGURATION W1B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

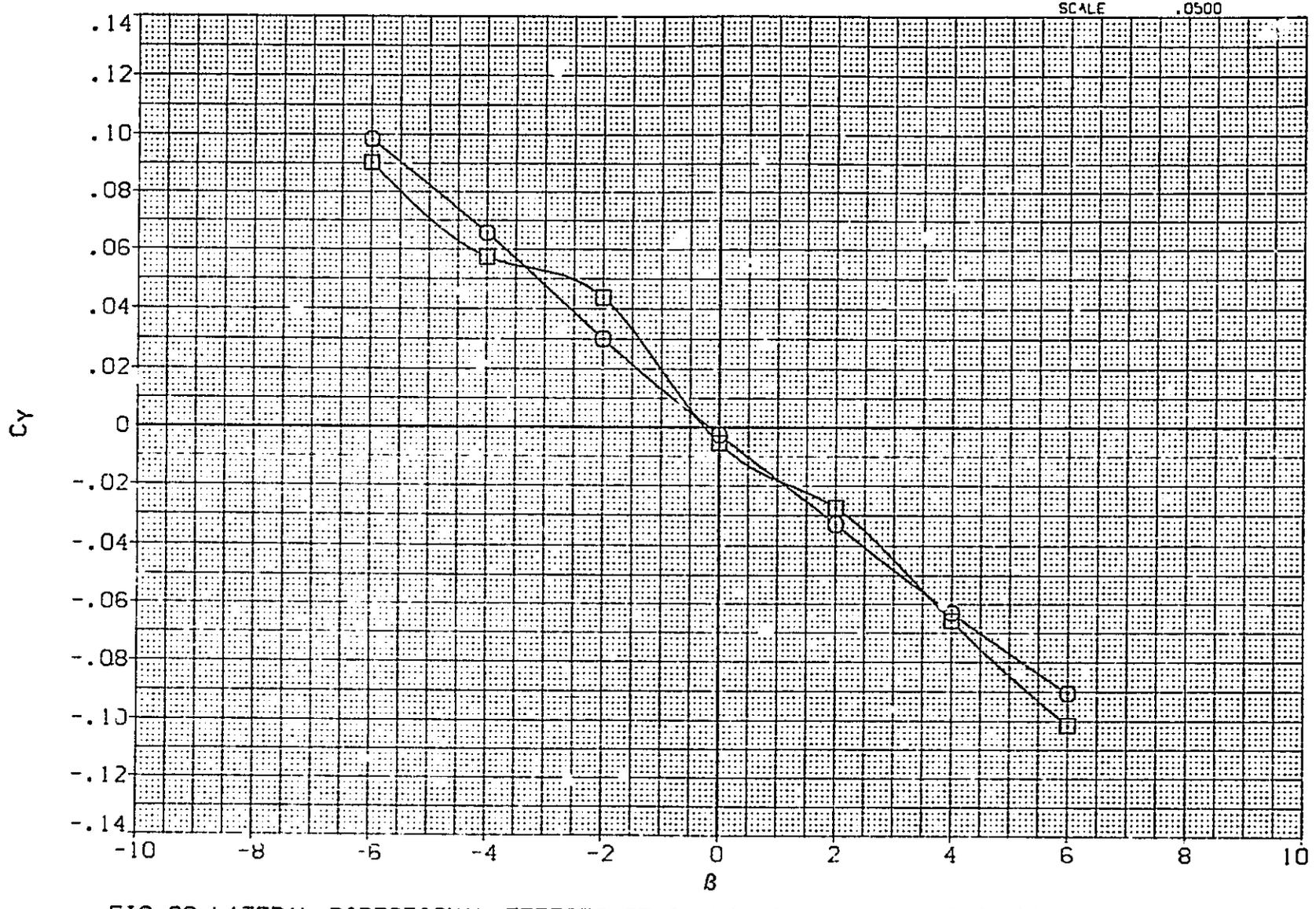

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON CONFIGURATION B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

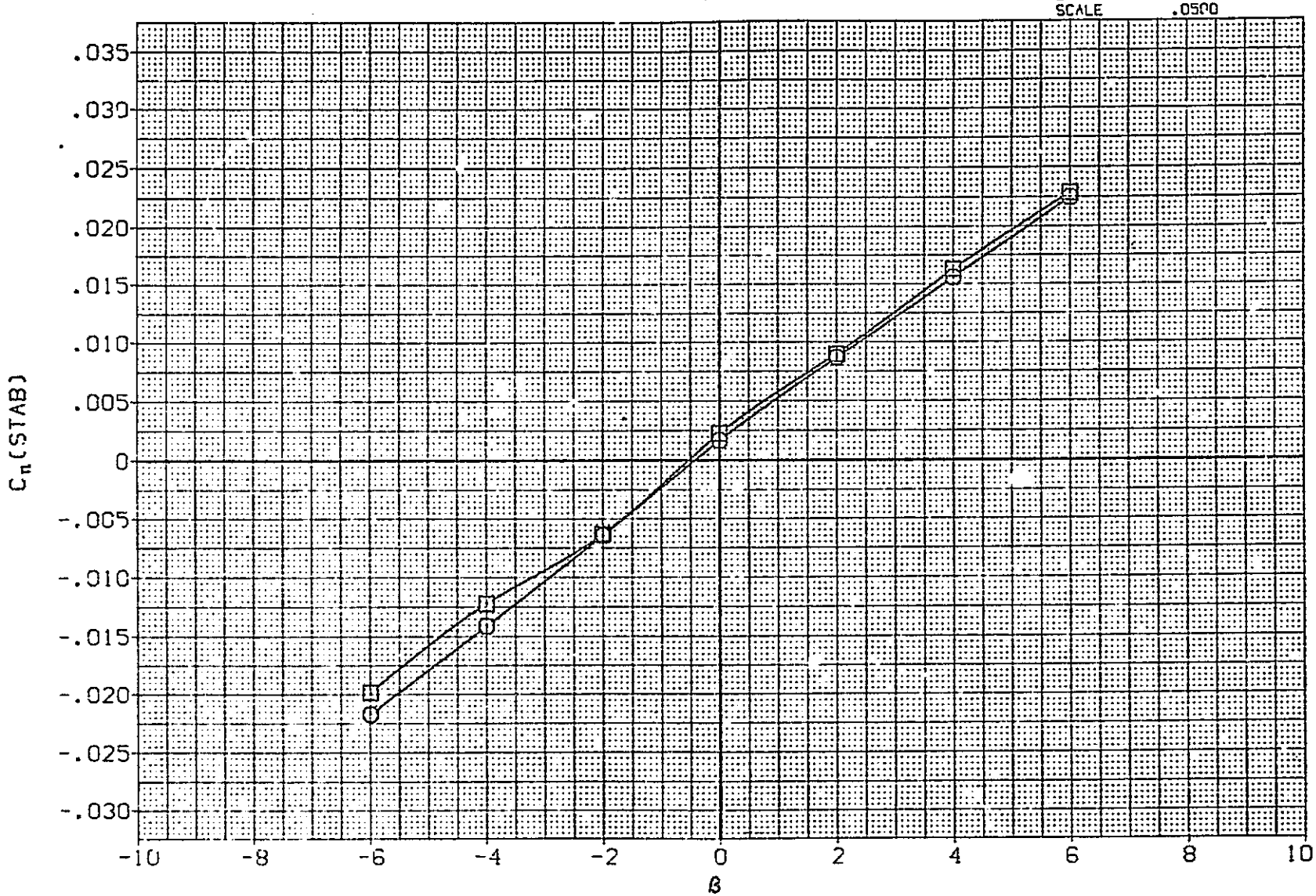

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON
CONFIGURATION B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

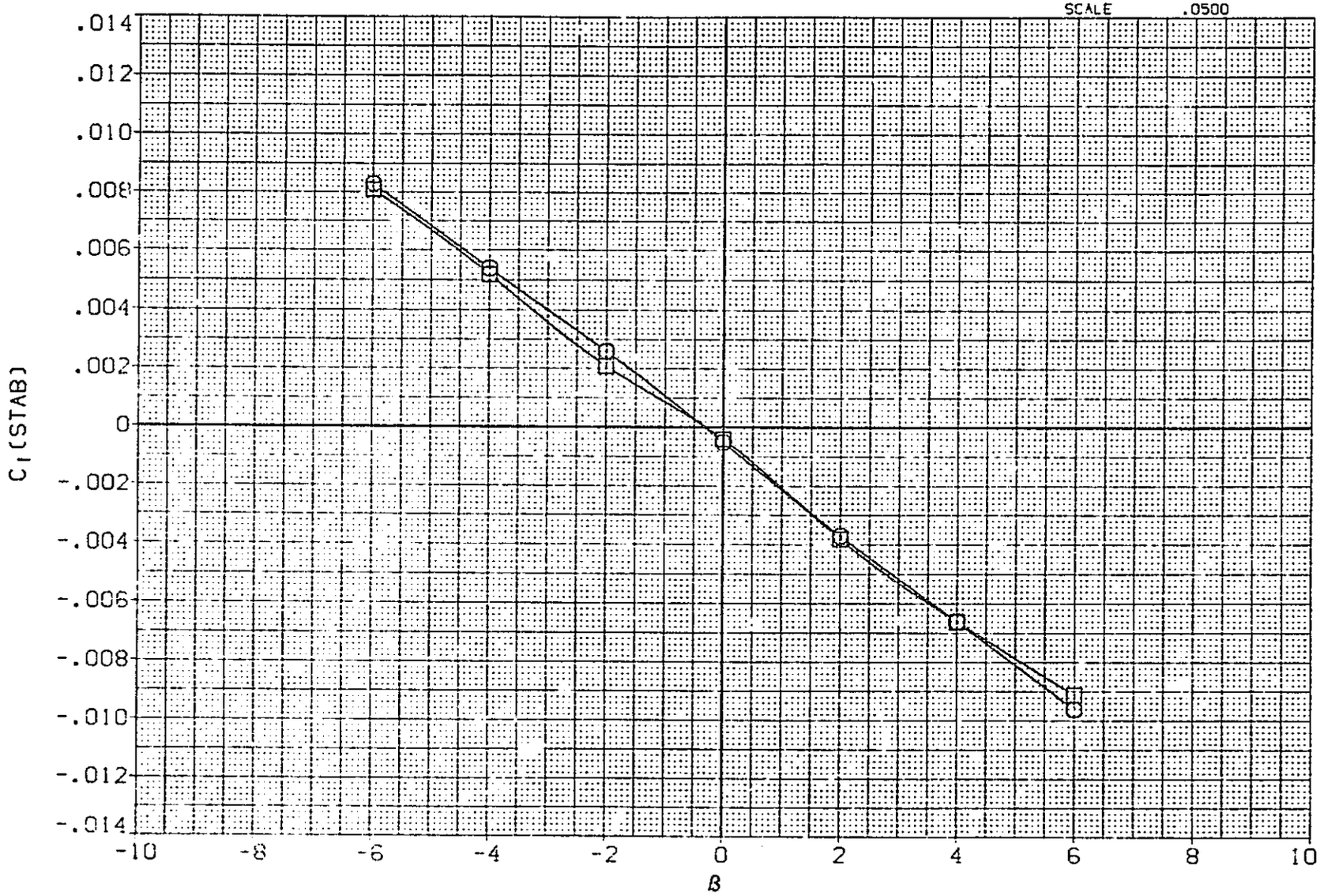

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON CONFIGURATION B1V1

(A)ALPHA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH053)	○	B1V1
(RFH052)	□	B1V1GC2

MACH
.067
.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

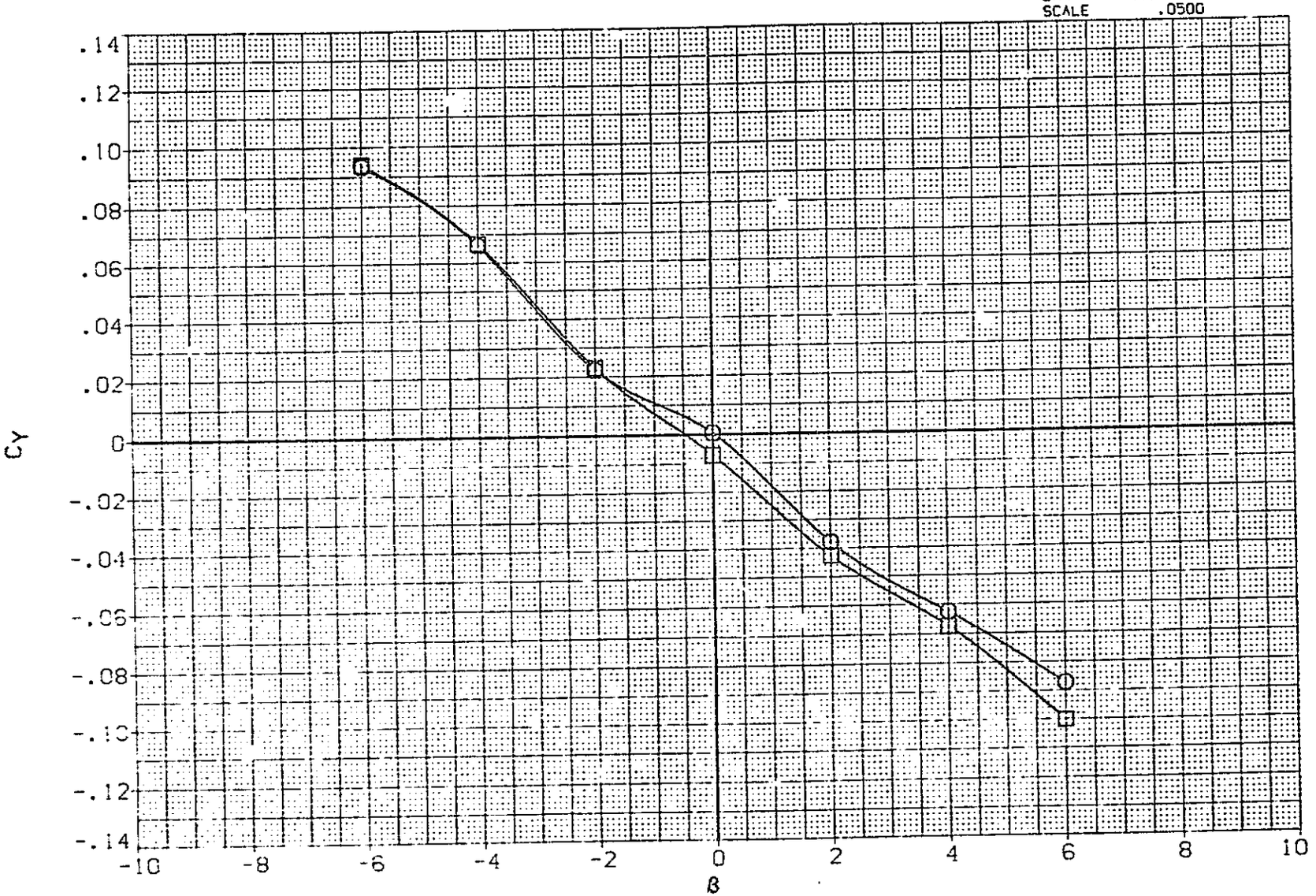

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON
CONFIGURATION B1V1

(B)ALPHA = 10.01

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RFH053) ○ B1V1
(RFH052) □ B1V1GC2

MACH
.067
.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

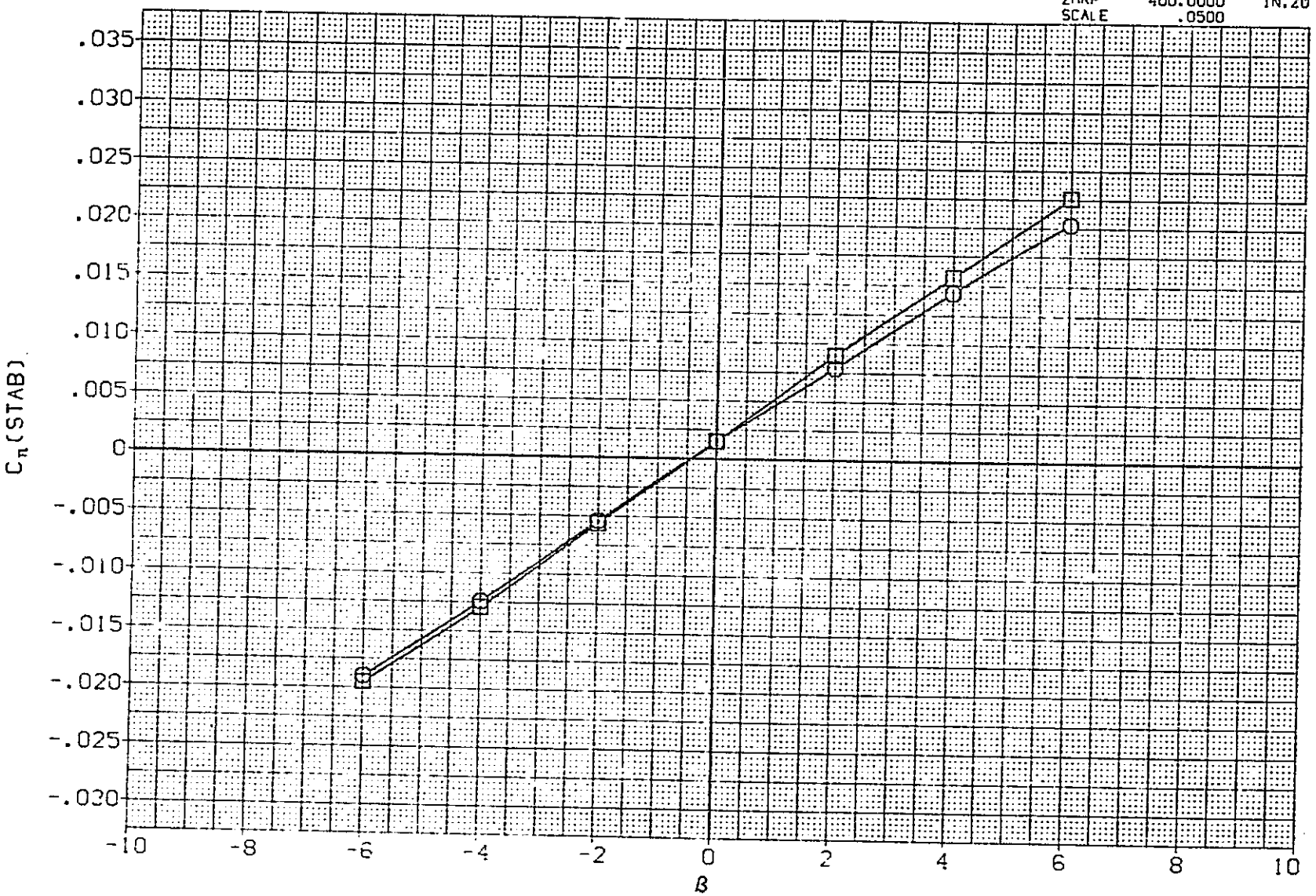

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON
CONFIGURATION B1V1

(B)ALPHA = 10.01

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

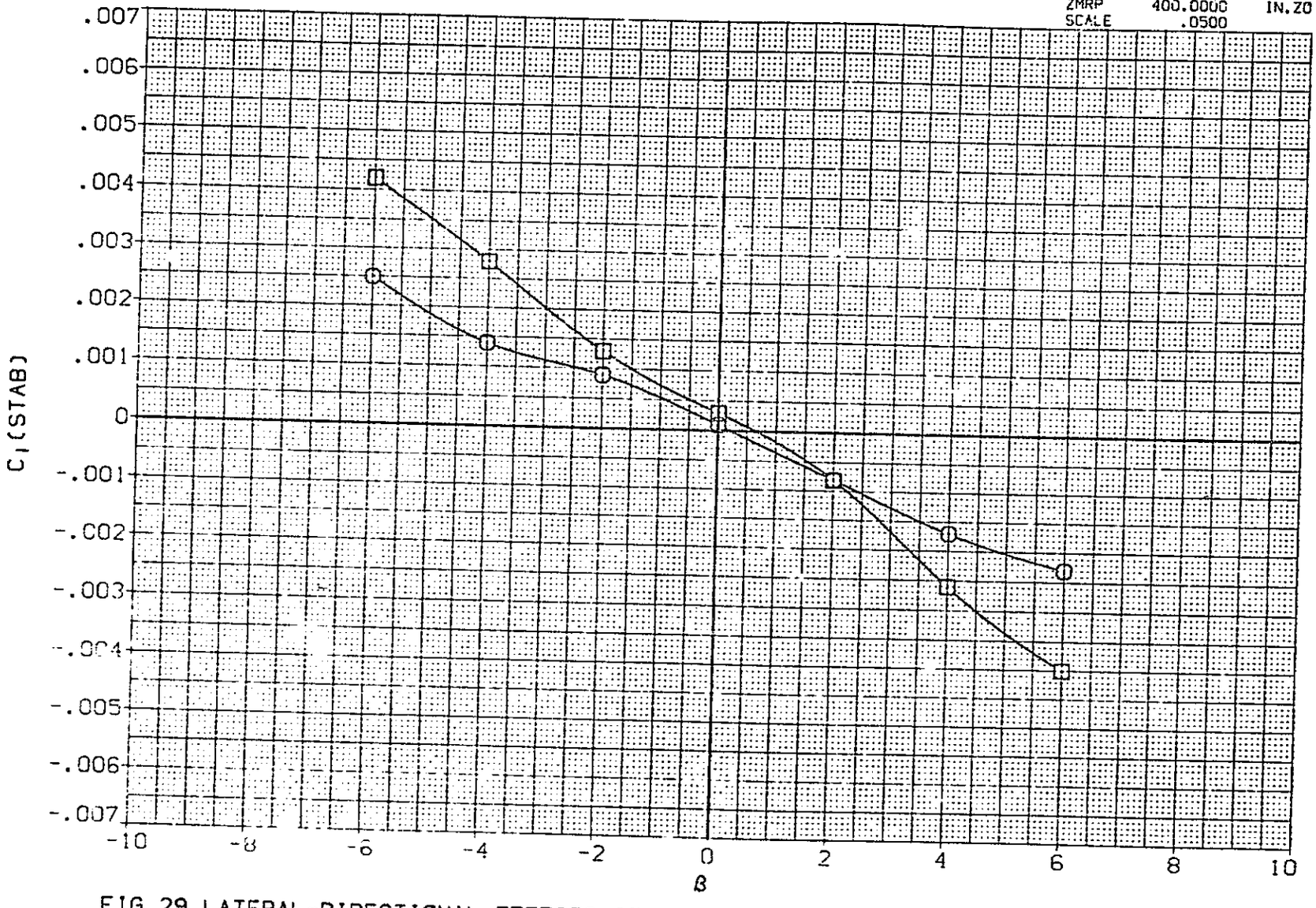

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON CONFIGURATION B1V1

(B)ALPHA = 10.0!

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

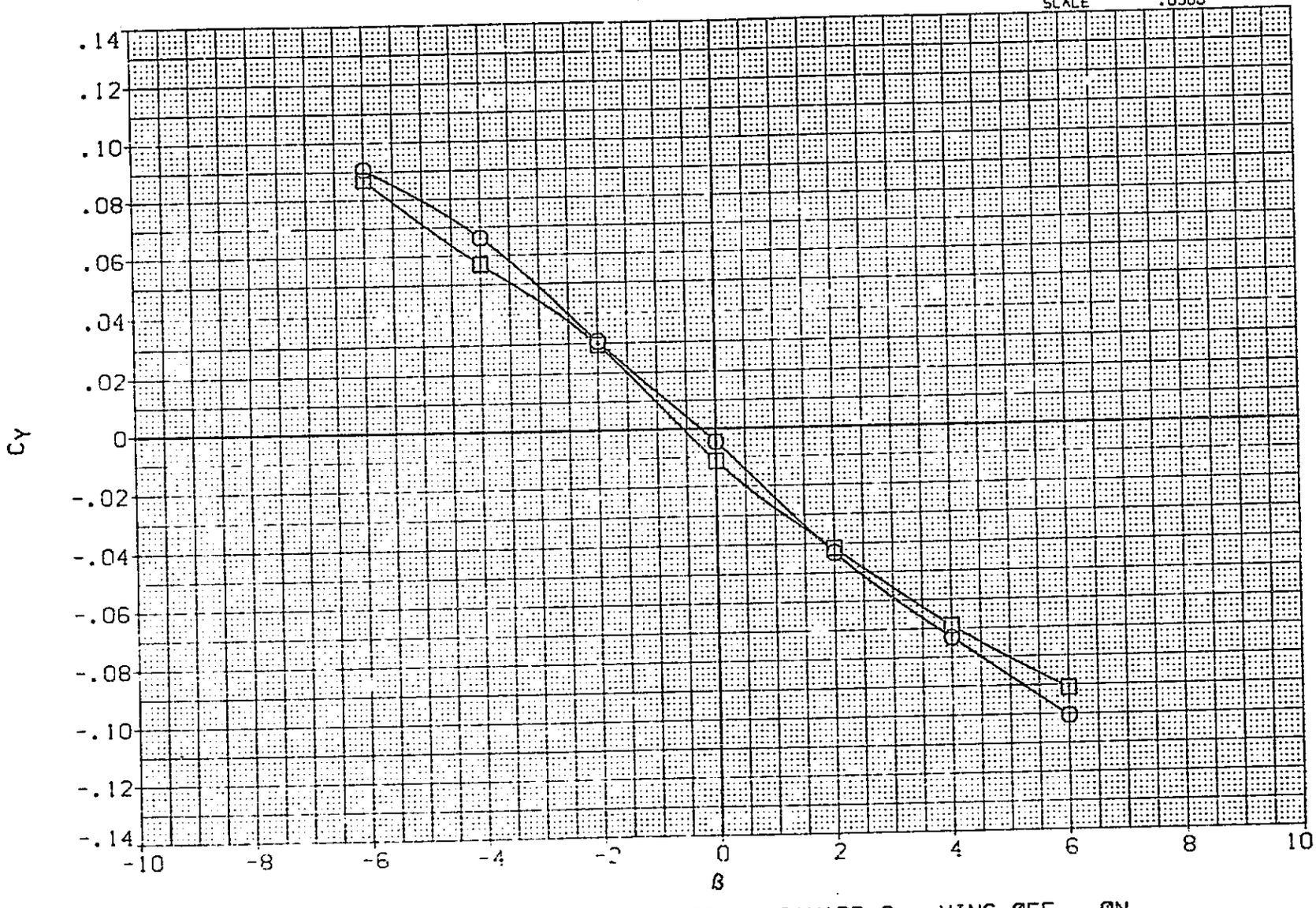

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON CONFIGURATION B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

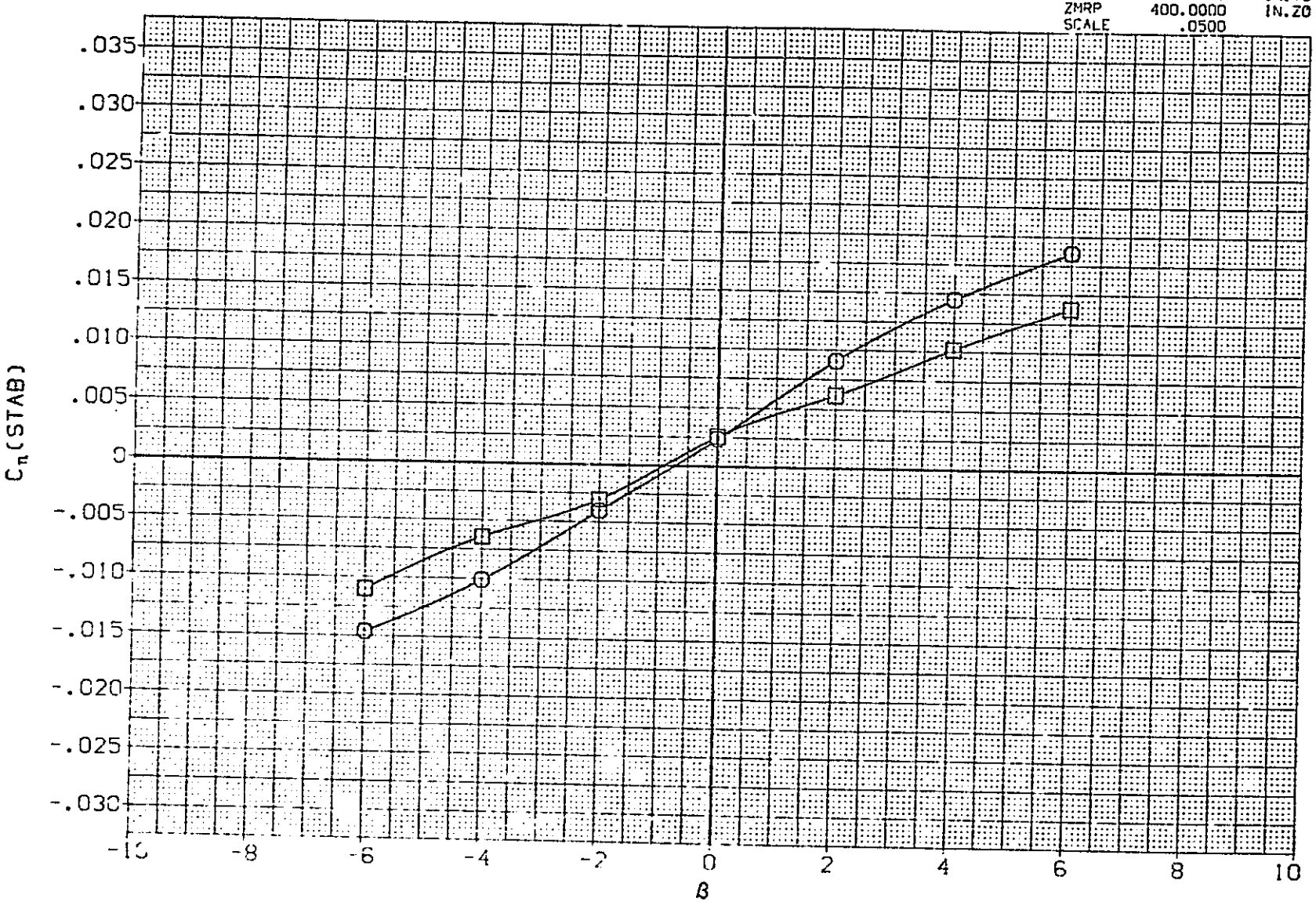

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON CONFIGURATION B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	MACH
(RFH053)	○	B1V1	.067
(RFH052)	□	B1V1GC2	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

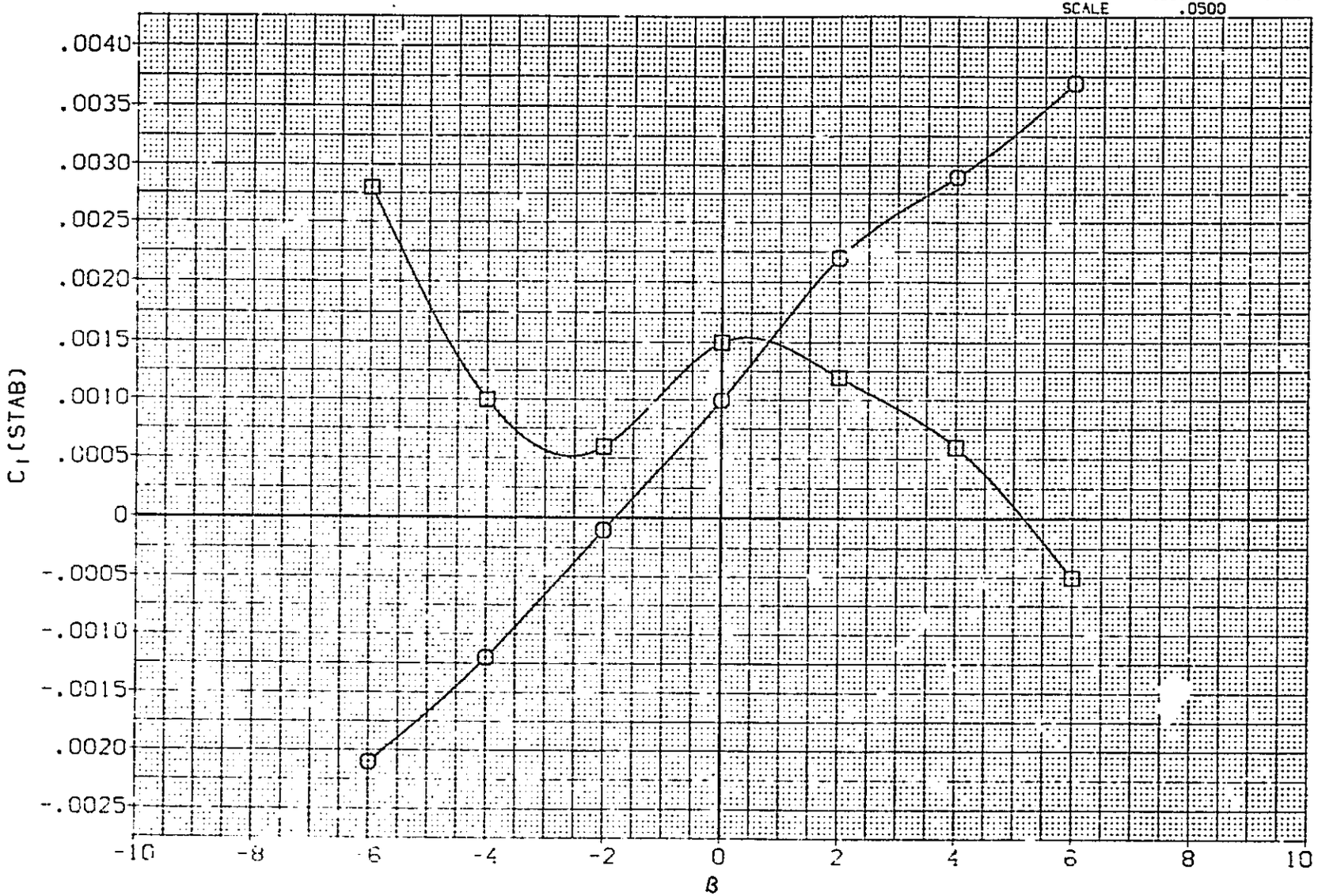

FIG 29 LATERAL-DIRECTIONAL EFFECTS OF GOTHIC CANARD 2 - WING OFF - ON CONFIGURATION B1V1

(C)ALPHA = 20.10

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RFH030)	8	W2B1V1SC2
(RFH065)	8	W2B1V1SC2

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	2.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

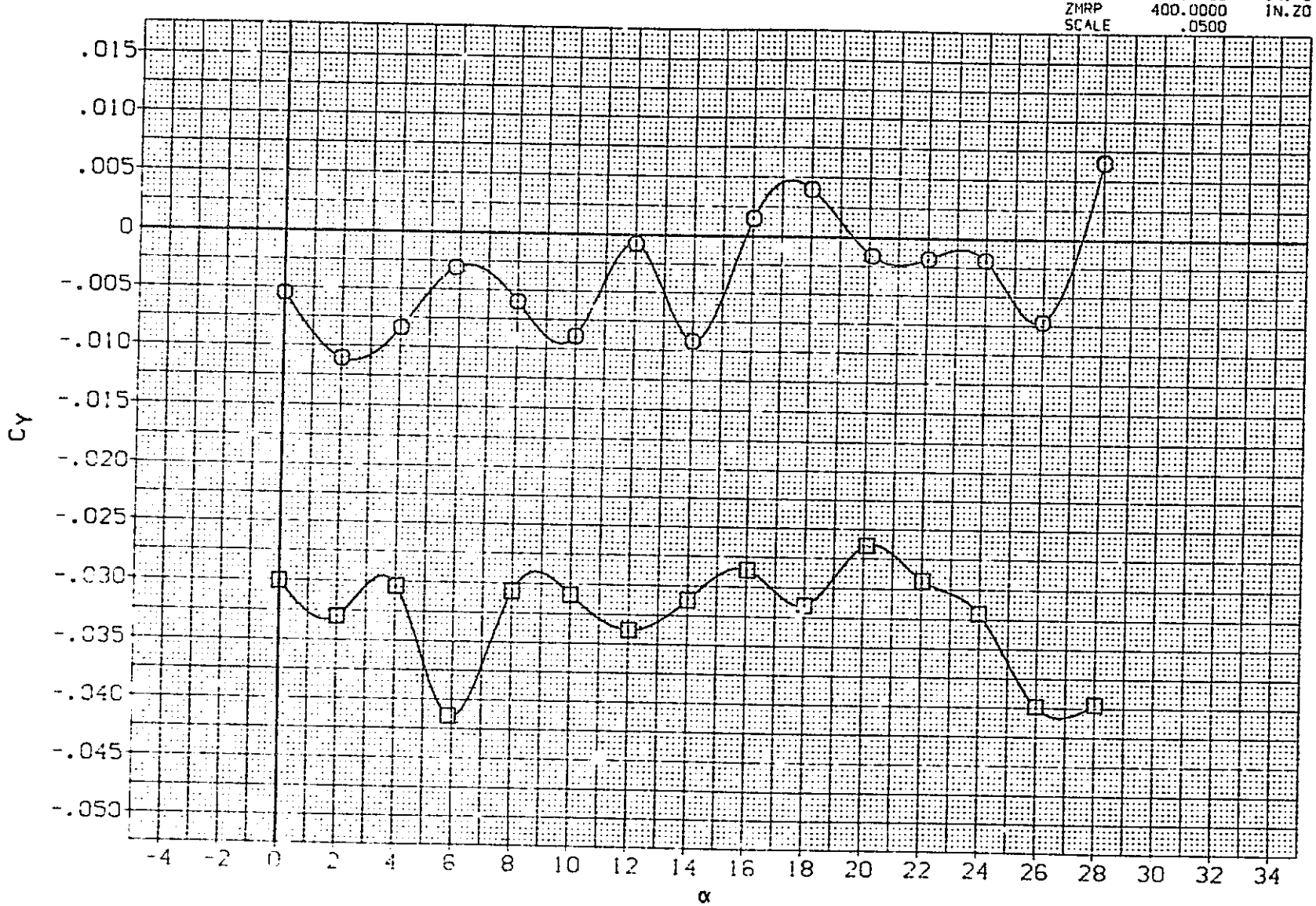

FIG 30 LATERAL-DIRECTIONAL EFFECTS OF +2 DEGREE SIDESLIP WITH SWITCH BLADE CANARD 2 ON CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH	BETA
(RFH030)	○	W2B1VISC2	.000	.067	.000
(RFH065)	□	W2B1VISC2	.000	.067	2.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. XO
YMRP	.0000	IN. YO
ZMRP	400.0000	IN. ZO
SCALE	.0500	

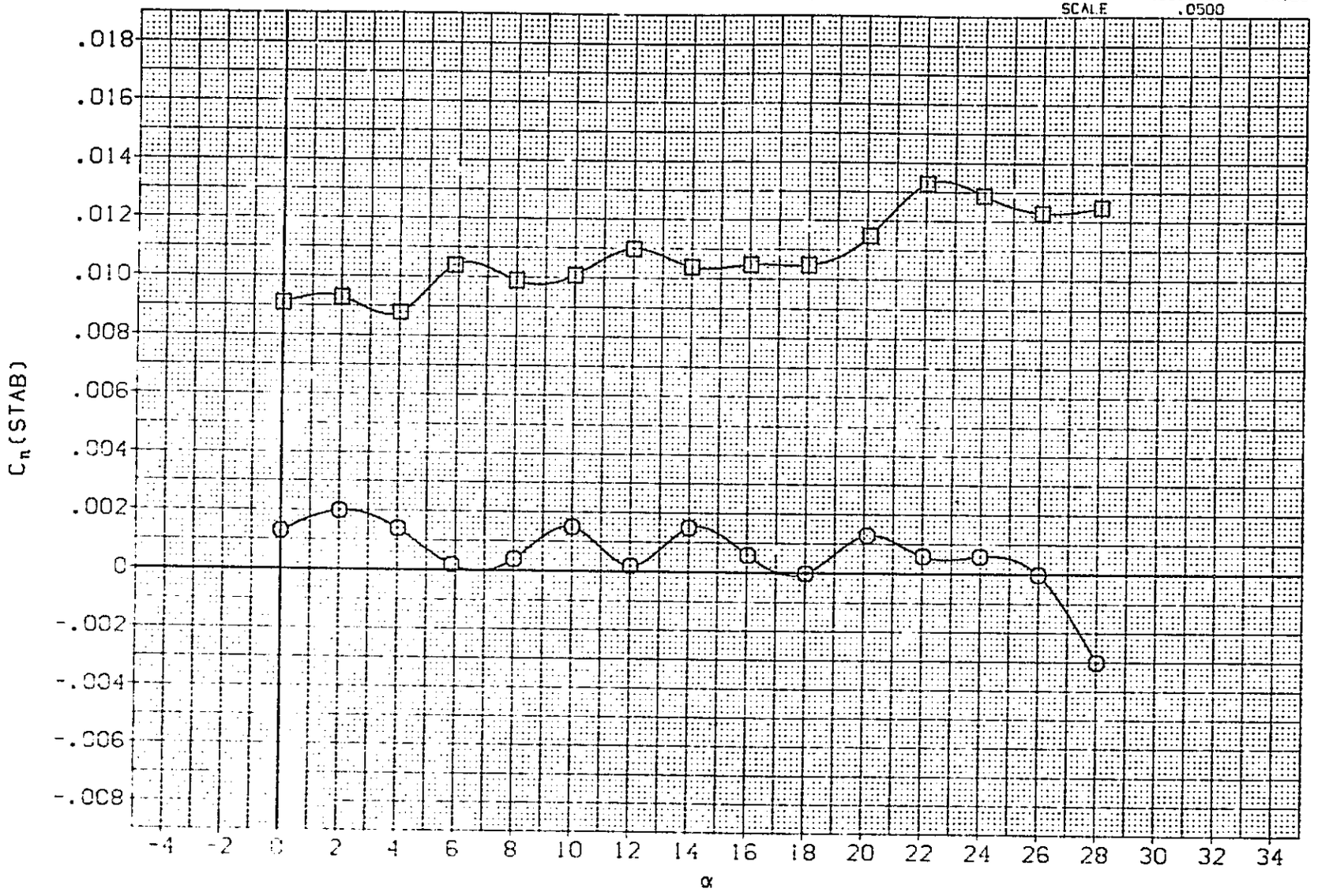

FIG 30 LATERAL-DIRECTIONAL EFFECTS OF +2 DEGREE SIDESLIP WITH SWITCH BLADE CANARD 2 ON CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMROL	CONFIGURATION DESCRIPTION
(RFH030)	○	W2B1V1SC2
(RFH065)	□	W2B1V1SC2

ELEVN	MACH	BETA
.000	.067	.000
.000	.067	2.000

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.X0
YMRP	.0000	IN.Y0
ZMRP	400.0000	IN.Z0
SCALE	.0500	

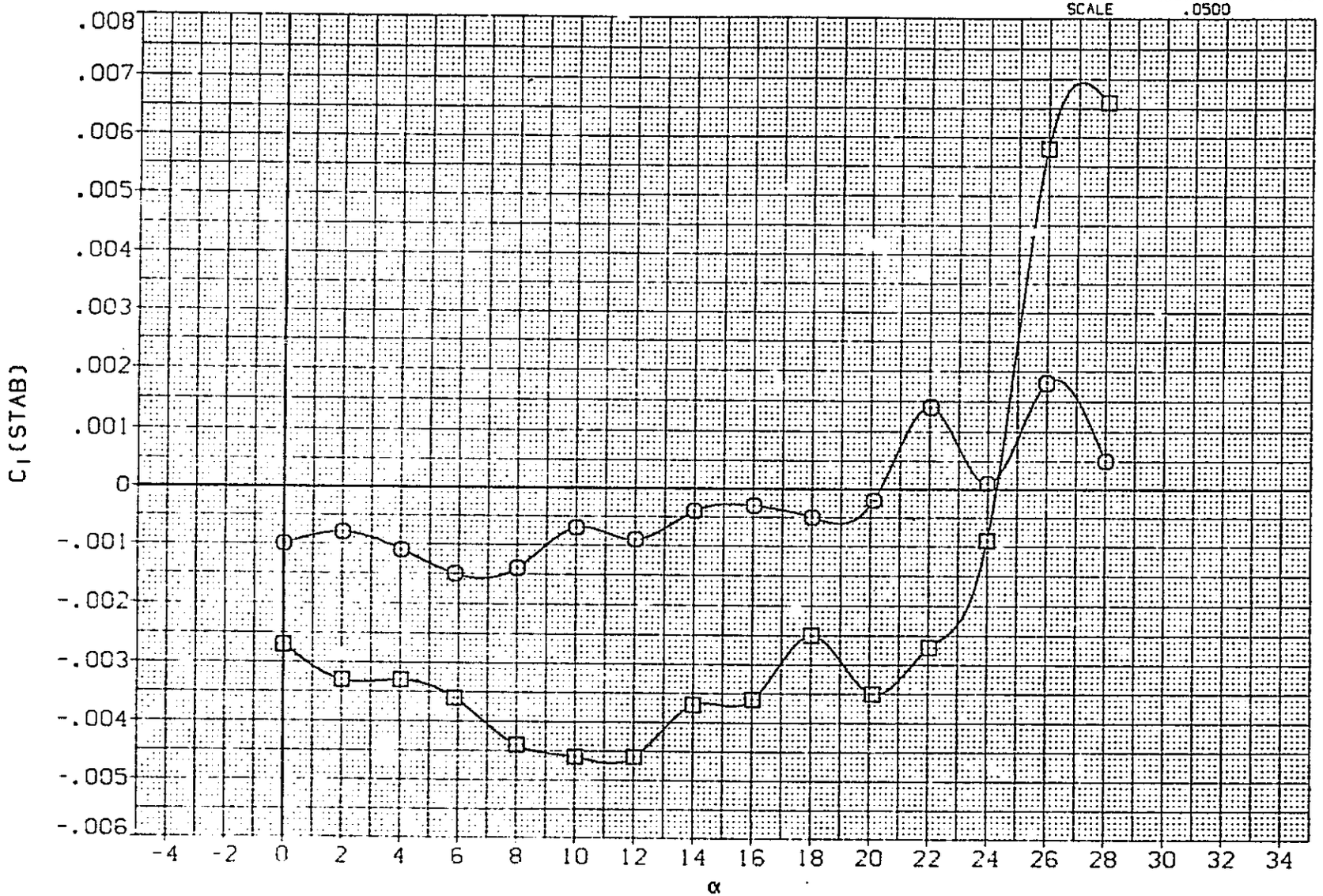

FIG 30 LATERAL-DIRECTIONAL EFFECTS OF +2 DEGREE SIDESLIP WITH SWITCH BLADE CANARD 2 ON CONFIGURATION W2B1V1

(A)BETA = .00

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(CFH002)	○	W2B1V1	.000	.067
(RFH066)	□	W2B1V1SC2	.000	.067
(RFH067)	◇	W2B1V1SC1	.000	.067
(RFH068)	△	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

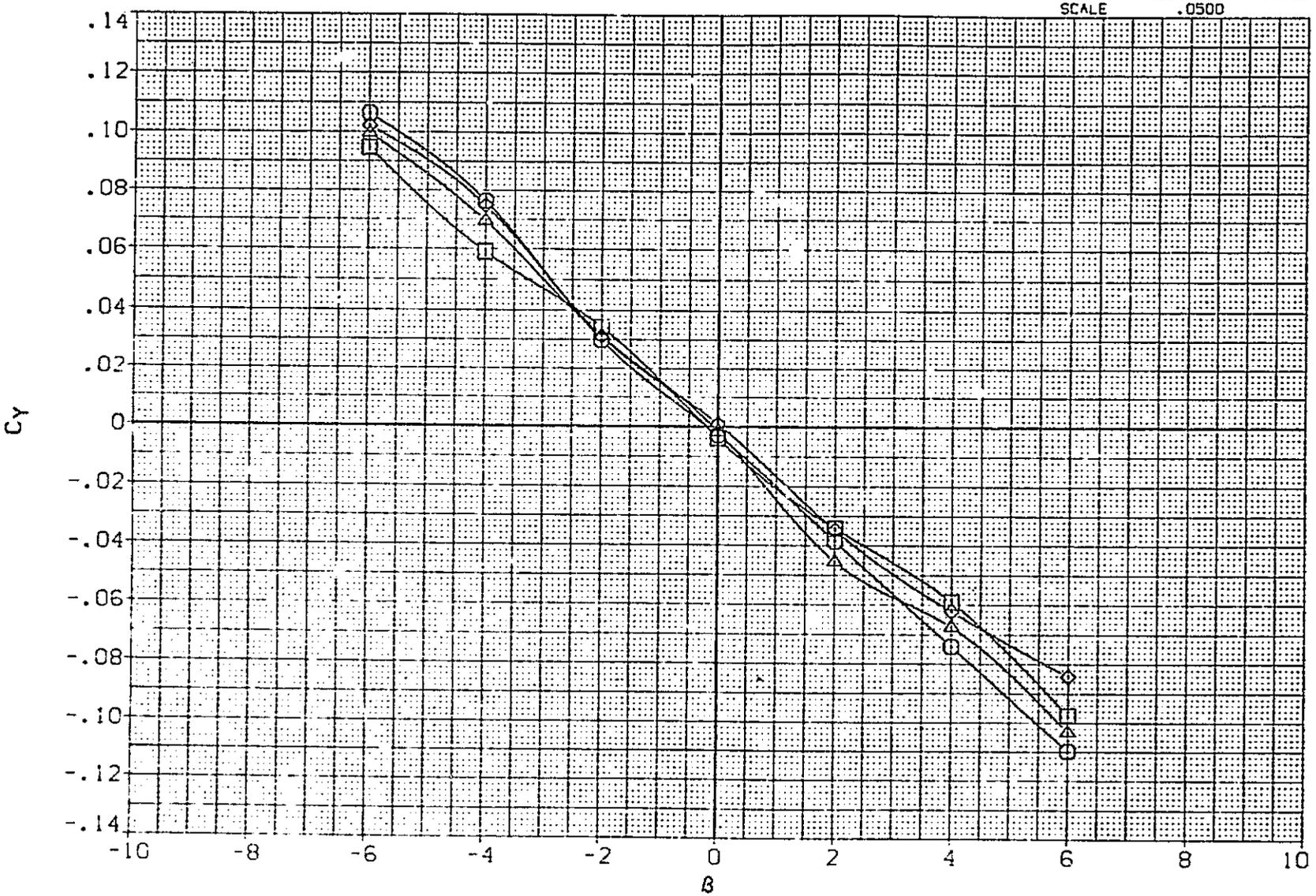

FIG 31 LATERAL-DIRECTIONAL EFFECTS AT +16 DEGREE ALPHA FOR SWITCH BLADE CANARDS 1 AND 2 AND GOTHIC CANARD 2

(A)ALPHA = 16.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(CFH002)	○	W2B1V1	.000	.067
(RFH066)	□	W2B1V1SC2	.000	.067
(RFH067)	◇	W2B1V1SC1	.000	.067
(RFH068)	△	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN. X0
YMRP	.0000	IN. Y0
ZMRP	400.0000	IN. Z0
SCALE	.0500	

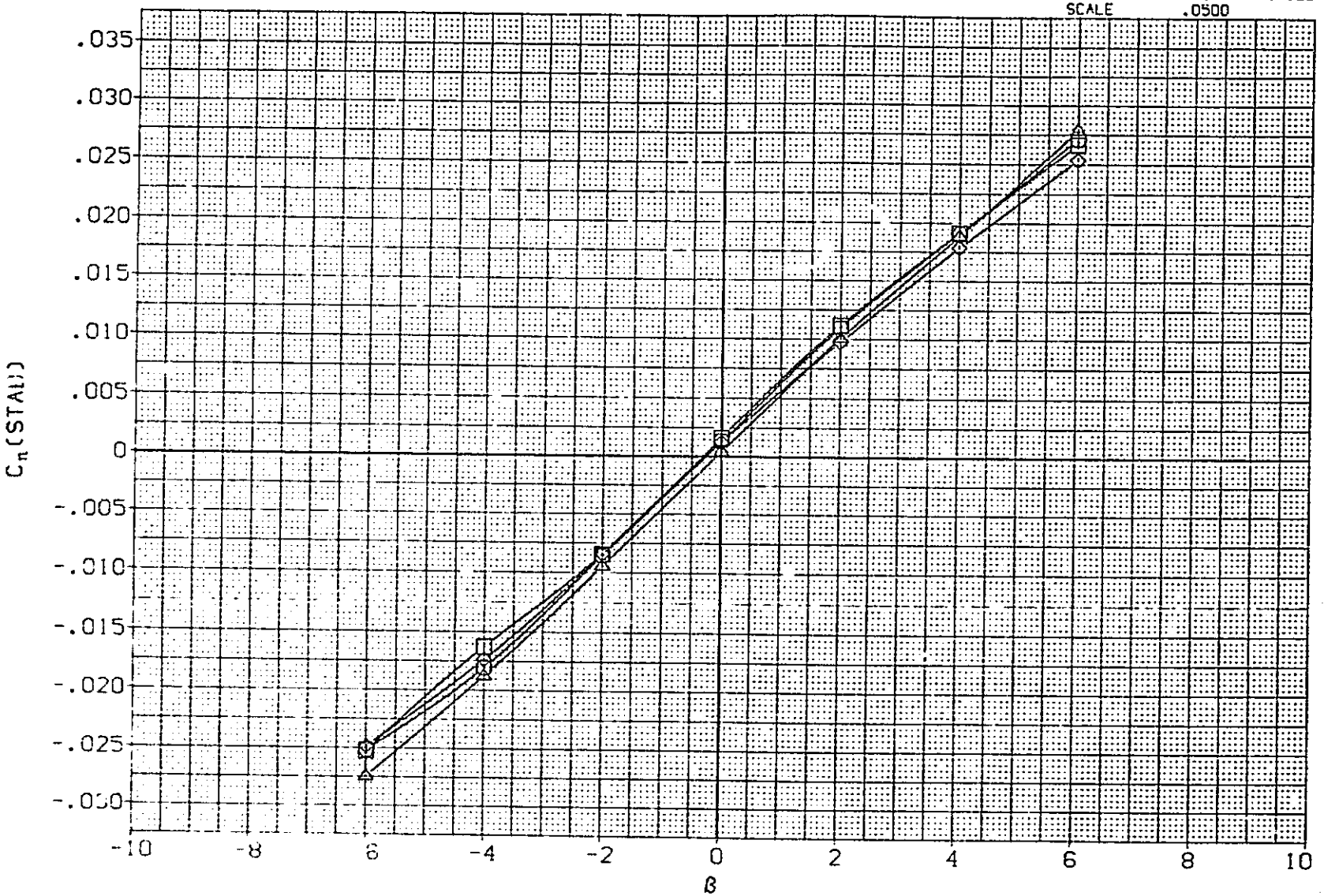

FIG 31 LATERAL-DIRECTIONAL EFFECTS AT +16 DEGREE ALPHA FOR SWITCH BLADE CANARDS 1 AND 2 AND GOTHIC CANARD 2

(A)ALPHA = 16.03

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	ELEVN	MACH
(CFH002)	○	W2B1V1	.000	.067
(RFH066)	□	W2B1V1SC2	.000	.067
(RFH067)	◇	W2B1V1SC1	.000	.067
(RFH068)	△	W2B1V1GC2	.000	.067

REFERENCE INFORMATION

SREF	3420.0000	SQ.FT.
LREF	507.1000	IN.
BREF	1115.8000	IN.
XMRP	714.8000	IN.XO
YMRP	.0000	IN.YO
ZMRP	400.0000	IN.ZO
SCALE	.0500	

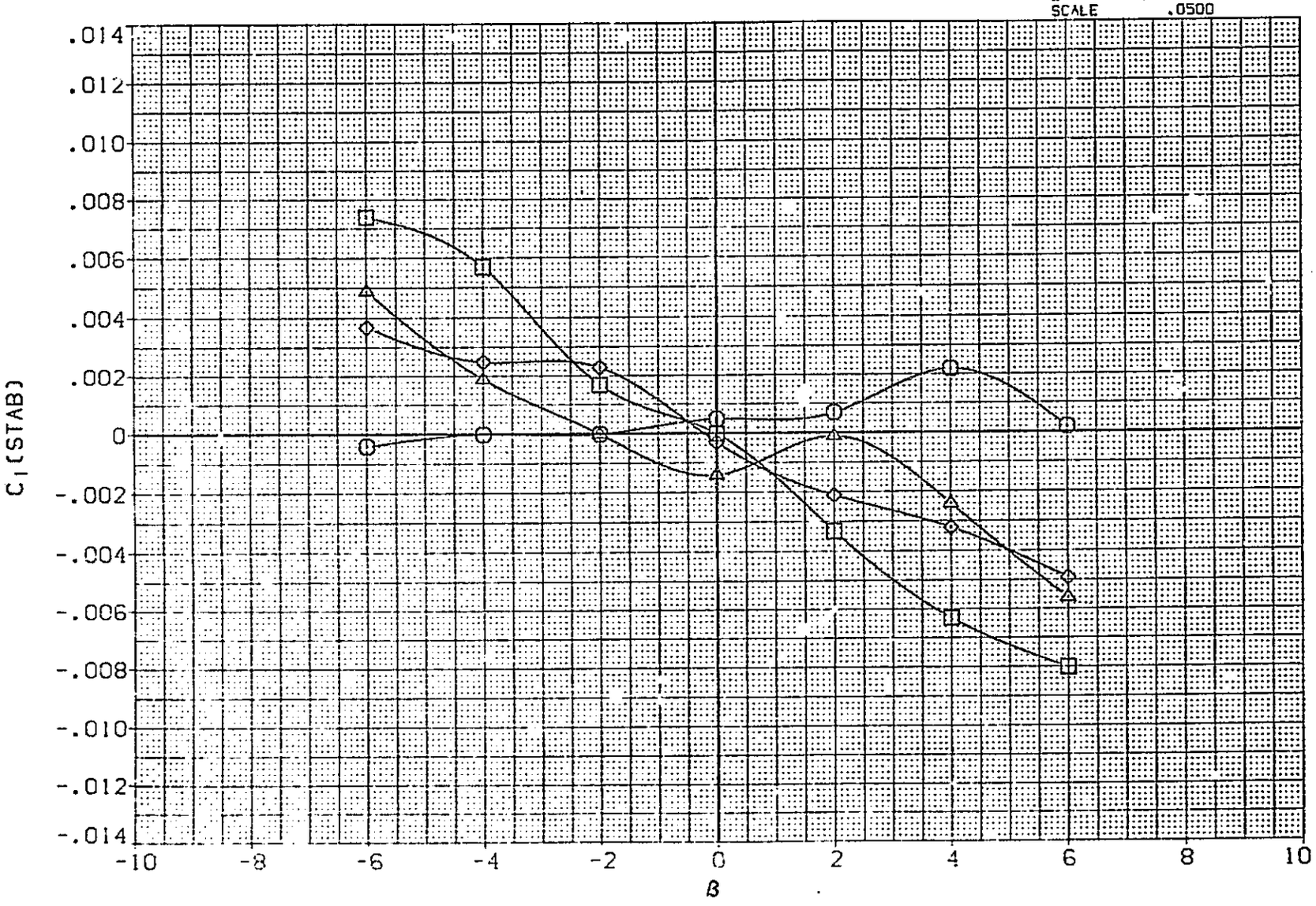

FIG 31 LATERAL-DIRECTIONAL EFFECTS AT +16 DEGREE ALPHA FOR SWITCH BLADE CANARDS 1 AND 2 ANC GOTHIC CANARD 2

(A)ALPHA = 16.03

APPENDIX

TABULATED SOURCE DATA

Tabulations of plotted data are available upon request from Data Management Services.

DATE 12 JUL 76

MA14 TABULATED SOURCE DATA

(RFH001) (08 JUL 76)

W2B1V1

REFERENCE DATA

SREF	=	3420.0000 SQ.FT.	XMRP	=	714.8000 IN.XO
LREF	=	507.1000 IN.	YMRP	=	.0000 IN.YO
BREF	=	1115.8000 IN.	ZMRP	=	400.0000 IN.ZO
SCALE	=	.0500			

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 1/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02560	.03520	-.01750	-.00830	-.00170	.00300
.000	2.010	.11910	.04680	-.06020	-.00310	-.00160	.00180
.000	4.030	.22520	.04240	-.10350	-.00340	-.00160	.00190
.000	5.870	.32140	.05050	-.14590	.00160	-.00140	.00070
.000	8.000	.43540	.08150	-.19940	.00120	-.00120	.00080
.000	10.010	.54650	.11490	-.24850	-.00180	-.00170	.00170
.000	12.010	.65030	.15490	-.29580	-.00200	-.00080	.00210
.000	14.000	.75300	.20220	-.34450	-.00240	-.00110	.00180
.000	16.030	.86020	.26220	-.40280	-.00550	.00110	.00190
.000	18.010	.99740	.33270	-.47080	-.00320	.00180	.00160
.000	20.100	1.11550	.41450	-.52520	-.00360	.00290	.00230
.000	22.030	1.13120	.45390	-.51630	-.00080	.00000	.00280
.000	23.980	1.06170	.49190	-.48440	-.01110	.00640	.00070
.000	25.980	1.01700	.51940	-.44790	.00290	.00610	-.00280
.000	28.010	.99470	.56410	-.43950	-.00250	.00250	.00080
	GRADIENT	.04953	.00178	-.02134	.00121	.00002	-.00027

(RFH002) (08 JUL 76)

W2B1V1

REFERENCE DATA

SREF	=	3420.0000 SQ.FT.	XMRP	=	714.8000 IN.XO
LREF	=	507.1000 IN.	YMRP	=	.0000 IN.YO
BREF	=	1115.8000 IN.	ZMRP	=	400.0000 IN.ZO
SCALE	=	.0500			

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 2/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03880	.02810	-.02960	.09800	.00290	-.02370
.000	-4.000	.03230	.03050	-.02310	.05710	.00160	-.01480
.000	-2.000	.03230	.03050	-.02020	.02980	-.00030	-.00790
.000	.000	.03100	.03290	-.02110	-.00290	-.00210	.00070
.000	2.000	.03510	.03070	-.02310	-.03840	-.00330	.00940
.000	4.000	.03480	.02840	-.02580	-.06850	-.00550	.01750
.000	6.000	.04320	.02620	-.03230	-.09870	-.00670	.02440
	GRADIENT	.00039	-.00020	-.00041	-.01597	-.00086	.00409

W2B1V1 (RFH002) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 3/ 0 RN/L = 00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
4.030	-6.000	.23630	.02890	-.11150	.09760	.00390	-.02510
4.030	-4.000	.23380	.03350	-.10720	.06480	.00230	-.01680
4.030	-2.000	.23150	.03340	-.10410	.02660	.00090	-.00790
4.030	.000	.22480	.03300	-.10310	-.00080	-.00210	.00030
4.030	2.000	.22790	.03330	-.10470	-.03360	-.00360	.00960
4.030	4.000	.23320	.03140	-.10870	-.06650	-.00560	.01740
4.030	6.000	.23720	.02950	-.11490	-.09940	-.00760	.02510
	GRADIENT	-.00024	-.00022	-.00018	-.01614	-.00101	.00429

RUN NO. 4/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.55490	.10670	-.25500	.09940	.00440	-.02590
10.010	-4.000	.55560	.10920	-.25090	.06660	.00190	-.01770
10.010	-2.000	.55070	.11080	-.24910	.02550	.00020	-.00780
10.010	.000	.54950	.11070	-.24800	-.00180	-.00150	.00050
10.010	2.000	.55390	.10920	-.25010	-.03740	-.00370	.01040
10.010	4.000	.55290	.10670	-.25220	-.07030	-.00550	.01850
10.010	6.000	.55940	.10560	-.25860	-.10050	-.00770	.02490
	GRADIENT	-.00011	-.00033	-.00018	-.01683	-.00093	.00453

RUN NO. 5/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
16.030	-6.000	.86870	.24990	-.40660	.10640	-.00040	-.02510
16.030	-4.000	.86740	.25440	-.40350	.07640	.00000	-.01800
16.030	-2.000	.87350	.25630	-.40480	.02990	.00000	-.00850
16.030	.000	.87250	.25850	-.40620	-.00280	.00050	.00140
16.030	2.000	.87440	.25910	-.40810	-.03840	.00070	.01100
16.030	4.000	.87950	.25580	-.41340	-.07390	.00220	.01910
16.030	6.000	.87970	.25360	-.41830	-.10970	.00020	.02720
	GRADIENT	.00126	.00028	-.00116	-.01844	.00025	.00468

W2B1V1 (RFH002) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 6/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.12340	.38980	-.53200	.10810	-.00420	-.02470
20.100	-4.000	1.12160	.39170	-.52730	.07540	-.00380	-.01740
20.100	-2.000	1.12090	.39650	-.52600	.03720	-.00110	-.00900
20.100	.000	1.11790	.39790	-.52350	-.01170	.00350	.00180
20.100	2.000	1.11170	.39570	-.51880	-.04710	.00630	.01060
20.100	4.000	1.11210	.39090	-.51990	-.08540	.00780	.02010
20.100	6.000	1.12250	.39240	-.53130	-.11830	.00920	.02650
	GRADIENT	-.00141	-.00012	.00110	-.02029	.00153	.00473

W2B1V1 (RFH003) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 7/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.22590	.04540	.16460	-.00930	-.00030	.00220
.000	2.010	-.12530	.03650	.13110	-.00670	-.00090	.00160
.000	4.030	-.01980	.02580	.08870	-.00710	-.00080	.00170
.000	5.870	.07760	.03080	.04760	-.00730	-.00060	.00230
.000	8.000	.18300	.04420	.00200	-.00220	-.00050	.00050
.000	10.010	.30220	.06760	-.05150	-.00530	-.00080	.00180
.000	12.010	.41350	.09790	-.10240	-.00020	-.00080	.00180
.000	14.000	.52300	.13590	-.15320	-.01150	.00000	.00260
.000	16.030	.63760	.18680	-.21130	-.00640	.00120	.00210
.000	18.010	.75640	.24510	-.26850	-.00130	.00140	.00130
.000	20.100	.88560	.30860	-.32990	.00080	.00090	.00090
.000	22.030	.97150	.37020	-.36790	-.00470	.00210	.00170
.000	23.980	.96420	.41310	-.35530	-.00170	.00410	.00000
.000	25.980	.93300	.44880	-.33920	.00380	.00300	-.00220
.000	28.010	.88630	.48140	-.32180	.00640	-.00260	.00060
	GRADIENT	.05114	-.00486	-.01884	.00055	-.00012	-.00012

W2B1V1 (RFH004) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 8/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.27670	.04160	-.21280	-.00200	-.00220	.00150
.000	2.010	.37090	.06200	-.25520	.00310	-.00280	-.00010
.000	4.030	.47950	.06670	-.30240	.00000	-.00210	.00000
.000	5.870	.57810	.08110	-.34770	-.00020	-.00240	.00020
.000	8.000	.69860	.12740	-.40680	.00200	-.00210	-.00020
.000	10.010	.79420	.16760	-.44830	.00170	-.00200	.00030
.000	12.010	.87730	.21680	-.48410	.00150	-.00110	.00080
.000	14.000	.97460	.27120	-.53120	.00670	.00000	-.00010
.000	16.030	1.09670	.34420	-.59970	.00620	.00090	-.00030
.000	18.010	1.21880	.41870	-.65830	.00310	.00190	.00000
.000	20.100	1.19490	.88140	-.63730	.00400	.00410	-.00040
.000	22.030	1.19990	.50530	-.60630	-.00150	.00330	.00100
.000	23.980	1.16450	.55820	-.58470	-.00370	.00770	-.00100
.000	25.980	1.11480	.59170	-.55758	.00980	.00130	-.00410
.000	28.010	1.05020	.62100	-.52200	-.00590	.00550	-.00230
	GRADIENT	.05033	.00623	-.02223	.00049	.00003	-.00037

W2B1V1H1F(1,0) (RFH005) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 10/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02040	.03520	-.01290	.00530	-.00190	-.00010
.000	2.010	.11530	.03250	-.05620	.00500	-.00120	.00000
.000	4.030	.22440	.03770	-.10610	.00190	-.00110	.00060
.000	5.870	.32760	.05120	-.15330	.00430	-.00110	.00010
.000	8.000	.44360	.06850	-.20550	.00660	-.00090	-.00040
.000	10.010	.55320	.10660	-.25510	.00630	-.00070	.00010
.000	12.010	.65070	.15260	-.29890	.00060	.00000	.00130
.000	14.000	.74910	.19150	-.34000	.00580	.00060	.00000
.000	16.030	.85790	.25170	-.39510	.00550	.00210	.00000
.000	18.010	.96680	.31270	-.44590	.00770	-.00020	.00020
.000	20.100	1.07510	.38450	-.49370	.00470	.00070	.00050
.000	22.030	1.10640	.43600	-.49290	-.00040	.00290	.00030
.000	23.980	1.02240	.45510	-.43570	-.00510	.00730	-.00110
.000	25.980	.99440	.50300	-.42380	.00580	.00550	-.00460
.000	28.010	.95680	.53560	-.40640	.00880	.00540	-.00610
	GRADIENT	.05062	.00062	-.02313	-.00084	.00020	.00017

W2B1V1H1F(1,0) (RFH006) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 11/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03020	.03740	-.02320	.10080	.00260	-.02320
.000	-4.000	.02480	.03980	-.01870	.07080	.00140	-.01630
.000	-2.000	.01940	.04220	-.01360	.02720	-.00050	-.00620
.000	.000	.01920	.04220	-.01350	.00000	-.00110	.00160
.000	2.000	.01900	.04230	-.01580	-.03290	-.00330	.00920
.000	4.000	.02190	.04010	-.01960	-.06020	-.00460	.01610
.000	6.000	.02930	.03780	-.02470	-.08760	-.00620	.02350
	GRADIENT	-.00031	.00003	-.00020	-.01610	-.00074	.00401

W2B1V1H1F(1.0) (RFH005) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 12/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
4.030	-6.000	.23560	.03600	-.11490	.10300	.00350	-.02470
4.030	-4.000	.23420	.04060	-.11170	.07290	.00190	-.01700
4.030	-2.000	.22790	.03780	-.10690	.05380	-.00030	-.01080
4.030	.000	.22570	.03540	-.10470	-.00350	-.00100	.00080
4.030	2.000	.23070	.03820	-.10840	-.02810	-.00310	.00830
4.030	4.000	.23040	.03830	-.11110	-.05830	-.00480	.01540
4.030	6.000	.23470	.03400	-.11580	-.10750	-.00610	.02580
	GRADIENT	-.00024	-.00021	-.00001	-.01721	-.00081	.00419

RUN NO. 13/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.56100	.10780	-.26240	.09660	.00470	-.02420
10.010	-4.000	.55730	.10960	-.25850	.05830	.00240	-.01530
10.010	-2.000	.55590	.11180	-.25510	.03640	.00020	-.00870
10.010	.000	.55350	.11140	-.25540	-.00180	-.00150	.00060
10.010	2.000	.55220	.11130	-.25520	-.03740	-.00340	.00980
10.010	4.000	.55330	.10920	-.25840	-.07310	-.00460	.01780
10.010	6.000	.55770	.10780	-.26320	-.10330	-.00680	.02590
	GRADIENT	-.00059	-.00007	.00000	-.01683	-.00088	.00423

RUN NO. 14/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
16.030	-6.000	.85220	.24500	-.39650	.10930	.00110	-.02570
16.030	-4.000	.84950	.24670	-.39260	.07930	.00130	-.01910
16.030	-2.000	.84910	.25160	-.39140	.03280	.00050	-.00880
16.030	.000	.85000	.25190	-.39090	-.00260	.00230	.00020
16.030	2.000	.84970	.25190	-.39180	-.03820	.00070	.00980
16.030	4.000	.85110	.25000	-.39500	-.06840	-.00030	.01750
16.030	6.000	.85750	.24960	-.40280	-.10960	-.00070	.02630
	GRADIENT	.00019	.00034	-.00026	-.01832	-.00015	.00459

W2B1V1H1F(1,0) (RFH006) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 15/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.07960	.37860	-.50450	.11920	-.00590	-.02510
20.100	-4.000	1.07880	.38080	-.49990	.07290	-.00300	-.01650
20.100	-2.000	1.07020	.38260	-.49240	.04020	-.00150	-.00900
20.100	.000	1.07220	.38590	-.49360	-.00880	.00170	.00180
20.100	2.000	1.07760	.38300	-.49600	-.03880	.00540	.00950
20.100	4.000	1.07230	.38110	-.49460	-.08790	.00780	.01900
20.100	6.000	1.07980	.38160	-.50250	-.11810	.00790	.02580
	GRADIENT	-.00028	.00005	.00035	-.02003	.00142	.00447

W2B1V1H1F(1,0) (RFH007) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 16/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.22040	.02890	.16610	-.00110	-.00180	.00080
.000	2.010	-.11870	.02740	.12250	-.00690	-.00120	.00160
.000	4.030	-.01700	.02610	.07680	-.00720	-.00150	.00180
.000	5.870	.06240	.03150	.03180	-.00210	-.00120	.00060
.000	8.000	.19790	.04180	-.01800	.00290	-.00140	.00000
.000	10.010	.31370	.06740	-.06910	-.00550	-.00080	.00190
.000	12.010	.41620	.09860	-.11480	-.00310	-.00090	.00140
.000	14.000	.52370	.13620	-.16220	-.00350	-.00110	.00150
.000	16.030	.62320	.17780	-.20770	.00440	-.00020	.00000
.000	18.010	.74370	.23850	-.26500	.00660	-.00130	-.00020
.000	20.100	.86620	.30150	-.32320	.00900	.00010	-.00080
.000	22.030	.94370	.36130	-.35660	.00070	.00180	.00110
.000	23.980	.93290	.39380	-.33280	-.00150	.00460	.00030
.000	25.980	.88020	.42270	-.30310	.00410	.00200	-.00110
.000	28.010	.81860	.44230	-.27350	.01250	.00040	-.00320
	GRADIENT	.05047	-.00069	-.02216	-.00151	.00007	.00025

W2B1V1H1F(1,0) (RFH00B) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 17/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.24690	.05550	-.18960	-.00170	-.00240	.00140
.000	2.010	.35290	.06360	-.23850	-.00210	-.00140	.00050
.000	4.030	.45880	.07220	-.28760	-.00020	-.00180	.00000
.000	5.870	.56200	.09110	-.33810	-.00010	-.00170	.00010
.000	8.000	.68890	.12830	-.39730	.00480	-.00180	-.00040
.000	10.010	.78230	.16770	-.43770	.00730	-.00170	.00060
.000	12.010	.86300	.22330	-.47270	-.00100	-.00070	.00070
.000	14.000	.95350	.27300	-.51220	.00700	.00100	.00000
.000	16.030	1.05320	.34040	-.56820	.00930	.00200	-.00020
.000	18.010	1.16530	.41080	-.61820	.01160	-.00080	.00050
.000	20.100	1.21330	.46110	-.62190	.00110	.00590	.00000
.000	22.030	1.16340	.50540	-.57530	.00410	.00190	.00130
.000	23.980	1.12770	.54150	-.55180	-.00620	.00790	.00000
.000	25.980	1.05220	.57380	-.51250	.00220	.00360	-.00200
.000	28.010	1.01620	.60800	-.49380	.01310	-.00130	-.00170
	GRADIENT	.05258	.00414	-.02432	.00047	.00015	-.00035

W2B1V1H1F(1,+10) (RFH009) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 18/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.29020	.05820	-.23120	.00320	-.00220	-.00020
.000	2.010	.38950	.06990	-.27740	.00290	-.00220	.00000
.000	4.030	.50040	.08260	-.32980	.00250	-.00280	.00010
.000	5.870	.60250	.10030	-.37730	-.00330	-.00230	.00030
.000	8.000	.72430	.13360	-.43540	.00440	-.00220	-.00030
.000	10.010	.81980	.17950	-.47710	.00150	-.00090	.00070
.000	12.010	.89990	.23150	-.51240	.00130	-.00020	.00010
.000	14.000	.99560	.28640	-.55850	.00100	.00080	.00040
.000	16.030	1.09920	.35720	-.61360	.00340	.00090	.00030
.000	18.010	1.22000	.43410	-.67370	.00560	.00010	.00000
.000	20.100	1.30140	.50170	-.70120	.00280	.00000	.00010
.000	22.030	1.24760	.53770	-.65150	-.00200	.00190	.00110
.000	23.980	1.17150	.56420	-.59900	-.00670	.00720	-.00070
.000	25.980	1.08830	.58910	-.54750	-.00610	.00710	-.00040
.000	28.010	1.03420	.61240	-.51000	.01560	-.00270	-.00290
	GRADIENT	.05216	.00605	-.02447	-.00017	-.00015	.00007

W2B1V1H1F11.+10) (RFH010) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH =	.067	ELEVN =	-10.000
BETA =	.000		

RUN NO. 19/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.17900	.04330	.12940	-.00140	-.00070	.00040
.000	2.010	-.08120	.04310	.08610	-.00180	-.00130	.00050
.000	4.030	.02630	.04360	.03800	.00320	-.00210	-.00050
.000	5.870	.12200	.05000	-.00440	-.00520	-.00120	.00020
.000	8.000	.22930	.05360	-.05010	.00530	-.00150	-.00050
.000	10.010	.34740	.08320	-.10340	-.00040	-.00140	.00080
.000	12.010	.45830	.11990	-.15450	.00190	-.00120	.00020
.000	14.000	.56660	.15690	-.20190	-.00110	-.00130	.00100
.000	16.030	.67290	.20460	-.25510	.00940	-.00040	-.00060
.000	18.010	.79860	.26170	-.31580	.00890	-.00020	-.00110
.000	20.100	.92730	.32930	-.37830	.01130	.00070	-.00100
.000	22.030	1.01290	.39750	-.41440	.00830	.00080	-.00090
.000	23.980	1.01750	.43720	-.40350	.00860	.00310	-.00150
.000	25.980	.96840	.46630	-.36690	.00360	.00330	-.00230
.000	28.010	.89740	.48190	-.32100	.00410	.00390	-.00340
	GRADIENT	.05094	.00007	-.02268	.00114	-.00035	-.00022

W2B1V1H1F(1.+10) (RFH011) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .050

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 207 0 RN/L = .00 GRADIENT INTERVAL = -5.007 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.05610	.03550	-.04970	-.00040	-.00120	.00120
.000	2.010	.15620	.04140	-.09500	-.00620	-.00130	.00090
.000	4.030	.26410	.04550	-.14330	-.00110	-.00140	.00030
.000	5.870	.36520	.05780	-.18990	-.00150	-.00140	.00000
.000	8.000	.48300	.07680	-.24170	.00080	-.00180	.00000
.000	10.010	.58970	.11820	-.29310	.00320	-.00130	.00040
.000	12.010	.68830	.16330	-.33700	.00560	-.00100	.00030
.000	14.000	.79090	.20720	-.38180	.00540	.00020	-.00040
.000	16.030	.91650	.27310	-.44730	.00760	.00110	-.00070
.000	18.010	1.03150	.33670	-.50530	.00720	.00100	-.00010
.000	20.100	1.14070	.40900	-.55210	.00700	.00210	-.00110
.000	22.030	1.17520	.46960	-.55750	.00430	.00180	-.00040
.000	23.980	1.14190	.50140	-.52670	.00740	.00240	-.00150
.000	25.980	1.04590	.52070	-.46730	.00260	.00320	-.00250
.000	28.010	.97200	.54120	-.41770	.01670	.00140	-.00480
	GRADIENT	.05161	.00248	-.02323	-.00017	-.00005	-.00022

W2B1V1H1F(1,-10) (RFH012) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH =	.067	ELEVN =	.000
BETA =	.000		

RUN NO. 21/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.02170	.03950	.03020	-.00230	-.00170	.00110
.000	2.010	.07620	.04010	-.01480	.00000	-.00140	.00050
.000	4.030	.18300	.04140	-.06260	-.00300	-.00130	.00070
.000	5.870	.28350	.04860	-.10760	.00470	-.00150	-.00090
.000	8.000	.39530	.06360	-.15760	.00160	-.00140	.00020
.000	10.010	.50860	.10540	-.20910	.00130	-.00110	.00080
.000	12.010	.60080	.14390	-.24950	.00100	-.00060	.00140
.000	14.000	.69510	.18490	-.29140	.00350	-.00050	.00020
.000	16.030	.79440	.24270	-.33840	.00870	.00080	.00020
.000	18.010	.91010	.30600	-.39500	.00830	.00120	.00010
.000	20.100	1.02400	.37030	-.44370	.00260	.00210	.00110
.000	22.030	1.04130	.41920	-.43260	.00280	.00280	.00070
.000	23.980	.96170	.43780	-.37910	-.00450	.00730	.00040
.000	25.980	.93710	.47720	-.37440	.00340	.00270	-.00130
.000	28.010	.90950	.51550	-.37000	.00240	-.00330	-.00300
	GRADIENT	.05080	.00047	-.02303	-.00017	.00010	-.00010

W2B1V1H1F(1,-10. (RFH013) (09 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 22/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.25280	.04260	.20260	-.00070	-.00100	.00070
.000	2.010	-.15170	.04230	.15850	-.00370	-.00050	.00090
.000	4.030	-.04410	.04030	.10950	-.00410	-.00080	.00050
.000	5.870	.05270	.04450	.06650	-.00710	-.00070	.00110
.000	8.000	.16350	.04600	.02010	-.00200	-.00090	.00000
.000	10.010	.27600	.06990	-.02980	.00030	-.00080	.00050
.000	12.010	.38270	.10550	-.07740	-.00270	-.00050	.00120
.000	14.000	.48700	.13630	-.12200	-.00300	-.00020	.00230
.000	16.030	.58870	.18450	-.17040	.00760	.00060	-.00050
.000	18.010	.69920	.23590	-.22060	.00440	.00000	.00040
.000	20.100	.82480	.29580	-.27750	.00410	.00200	-.00080
.000	22.030	.90370	.35730	-.30920	.00120	.00230	-.00040
.000	23.980	.87940	.38480	-.27800	-.00100	.00200	.00020
.000	25.980	.82670	.41160	-.25530	.00450	-.00040	-.00180
.000	28.010	.81380	.45540	-.25720	.00460	.00300	-.00310
	GRADIENT	.05179	-.00057	-.02310	-.00084	.00005	-.00005

W2B1V1H1F(1,-10) (RFH014) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 23/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.20800	.07150	-.15170	-.00130	-.00230	.00080
.000	2.010	.30910	.07570	-.19840	.00100	-.00200	.00030
.000	4.030	.41780	.08540	-.24690	.00060	-.00200	.00000
.000	5.870	.52690	.10590	-.29980	.00020	-.00200	-.00040
.000	8.000	.64240	.13320	-.35460	.00530	-.00220	-.00100
.000	10.010	.74440	.17730	-.39960	.00230	-.00180	.00070
.000	12.010	.81730	.22510	-.43050	.00490	-.00050	.00040
.000	14.000	.90150	.27170	-.46490	.00740	.00000	-.00030
.000	16.030	1.00910	.34260	-.52460	.00970	.00020	-.00090
.000	18.010	1.11250	.41290	-.57170	.00660	-.00170	.00040
.000	20.100	1.17830	.46540	-.58650	.00680	.00240	.00000
.000	22.030	1.10750	.49480	-.51970	-.00060	.00370	.00180
.000	23.980	1.04760	.52060	-.48450	-.00280	.00590	-.00040
.000	25.980	.99490	.55060	-.46560	.01330	-.00220	-.00380
.000	28.010	.99250	.59790	-.47610	.01330	-.00100	-.00190
	GRADIENT	.05206	.00345	-.02362	.00047	.00007	-.00020

W2B1V1H2F(1,0) (RFH015) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 247 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.22680	.05770	-.17140	-.00700	-.00170	.00160
.000	2.010	.32830	.06490	-.22040	-.00190	-.00170	.00040
.000	4.030	.44480	.07580	-.27460	-.00500	-.00160	.00120
.000	5.870	.55030	.09210	-.32470	-.00270	-.00190	.00070
.000	8.000	.67150	.13050	-.38400	-.00040	-.00130	.00010
.000	10.010	.76790	.16990	-.42650	-.00610	-.00130	.00150
.000	12.010	.84790	.21750	-.45880	-.00630	-.00010	.00180
.000	14.000	.93270	.27250	-.49590	-.00920	.00170	.00150
.000	16.030	1.03200	.33970	-.54270	-.00400	.00200	.00010
.000	18.010	1.12880	.40360	-.58530	.00380	.00030	.00030
.000	20.100	1.18870	.46440	-.59590	-.00680	.00480	.00120
.000	22.030	1.13910	.50040	-.55540	-.02510	.01350	.00270
.000	23.980	1.12110	.54880	-.54720	.00170	.00080	-.00170
.000	25.980	1.02230	.56430	-.49210	.00220	.00130	-.00150
.000	28.010	.99430	.59880	-.48006	-.00300	.00220	-.00060
	GRADIENT	.05410	.00449	-.02561	.00049	.00002	-.00010

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DATE 12 JUL 76

MA14 TABULATED SOURCE DATA

(RFH016) (08 JUL 76)

W2B1V1H2F(1.0)

REFERENCE DATA

SREF	=	3420.0000	SQ.FT.		
LREF	=	507.1000	IN.	XMRP	= 714.6000 IN.XO
BREF	=	1115.8000	IN.	YMRP	= .0000 IN.YO
SCALE	=	.0500		ZMRP	= 400.0000 IN.ZO

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 25/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.21180	.03370	.16070	-.00660	-.00070	.00150
.000	2.010	-.10950	.03490	.11230	-.00690	-.00050	.00160
.000	4.030	-.00130	.02970	.06440	-.00460	-.00090	.00110
.000	5.870	.09610	.03300	.02050	-.00500	-.00180	.00130
.000	8.000	.21330	.04650	-.03140	-.00800	-.00090	.00190
.000	10.010	.32780	.07250	-.08340	-.00840	-.00050	.00190
.000	12.010	.43540	.10050	-.12960	-.00870	-.00030	.00200
.000	14.000	.53650	.14190	-.17310	-.00630	-.00070	.00150
.000	16.030	.63240	.18530	-.21050	-.00640	.00070	.00170
.000	18.010	.74070	.23750	-.25960	-.00400	.00140	.00140
.000	20.100	.86600	.30630	-.31460	-.00430	.00200	.00060
.000	22.030	.93940	.36200	-.33950	-.00440	.00340	.00110
.000	23.980	.92860	.40200	-.32330	-.00680	.00460	-.00060
.000	25.980	.88820	.42920	-.30060	-.00400	.00260	-.00170
.000	28.010	.82950	.44800	-.26970	-.00360	.00320	-.00290
	GRADIENT	.05223	-.00099	-.02390	.00050	-.00005	-.00010

W2B1V1H2F(1.0) (RFH017) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 26/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.00650	.03510	-.00110	-.00540	-.00140	.00120
.000	2.010	.10560	.03680	-.04950	-.00300	-.00100	.00070
.000	4.030	.22120	.03970	-.10080	-.00070	-.00140	.00020
.000	5.870	.31940	.04800	-.14650	-.00920	-.00050	.00100
.000	8.000	.43980	.07270	-.20170	-.00960	-.00070	.00170
.000	10.010	.54970	.10840	-.25120	-.00450	-.00110	.00110
.000	12.010	.64850	.14250	-.29320	-.01020	-.00030	.00230
.000	14.000	.73030	.19160	-.32850	-.00500	-.00090	.00120
.000	16.030	.83480	.24740	-.37570	-.00250	.00120	.00000
.000	18.010	.94260	.31200	-.42430	-.00830	.00170	.00110
.000	20.100	1.04270	.37480	-.46040	-.00290	.00280	.00000
.000	22.030	1.05550	.42260	-.45230	-.01620	.00780	.00160
.000	23.980	1.04420	.47000	-.44390	-.01340	.00650	.00010
.000	25.980	.98880	.50280	-.41460	-.00230	.00340	-.00320
.000	28.010	.92090	.51900	-.37830	.00060	.00030	-.00240
	GRADIENT	.05328	.00114	-.02474	.00117	-.00000	-.00025

W2B1V1H2F(1.0) (RFH018) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 27/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.01860	.03730	-.01350	.10370	.00320	-.02390
.000	-4.000	.01540	.04200	-.00820	.06820	.00140	-.01620
.000	-2.000	.01310	.04210	-.00710	.02730	.00070	-.00730
.000	.000	.01080	.04210	-.00400	-.00540	-.00100	.00180
.000	2.000	.01380	.04220	-.00790	-.03820	-.00290	.00940
.000	4.000	.01790	.04000	-.01040	-.06560	-.00480	.01730
.000	6.000	.01970	.03770	-.01600	-.09840	-.00570	.02440
	GRADIENT	.00029	-.00020	-.00026	-.01565	-.00080	.00418

W2B1V1H2F(1.0) (RFH018) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 28/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
4.030	-6.000	.23440	.04050	-.11130	.10300	.00390	-.02520
4.030	-4.000	.22870	.04250	-.10760	.06750	.00260	-.01690
4.030	-2.000	.22420	.04460	-.10360	.03200	.00040	-.00850
4.030	.000	.22190	.04450	-.10200	.00190	-.00140	.00010
4.030	2.000	.22810	.04500	-.10520	-.03630	-.00290	.00910
4.030	4.000	.23010	.04290	-.10980	-.06370	-.00540	.01620
4.030	6.000	.23430	.04100	-.11510	-.09390	-.00670	.02380
	GRADIENT	.00033	.00006	-.00030	-.01653	-.00096	.00419

RUN NO. 29/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.55680	.10710	-.26070	.10490	.00570	-.02520
10.010	-4.000	.55535	.10920	-.25600	.07480	.00310	-.01770
10.010	-2.000	.55270	.11120	-.25400	.04730	.00040	-.01070
10.010	.000	.54990	.11320	-.25240	-.00450	-.00140	.00120
10.010	2.000	.55430	.11170	-.25580	-.03200	-.00350	.00970
10.010	4.000	.55330	.10920	-.25840	-.07040	-.00540	.01740
10.010	6.000	.55810	.10550	-.26320	-.10330	-.00700	.02480
	GRADIENT	-.00012	.00002	-.00033	-.01848	-.00104	.00453

RUN NO. 30/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
16.030	-6.000	.83060	.24350	-.37780	.10680	.00160	-.02520
16.030	-4.000	.83510	.24730	-.37910	.07670	.00200	-.01810
16.030	-2.000	.83130	.24870	-.37380	.04120	.00160	-.00950
16.030	.000	.83410	.24960	-.37670	.00010	.00100	.00050
16.030	2.000	.83900	.25120	-.38030	-.03810	.00140	.01080
16.030	4.000	.83630	.24800	-.38130	-.06280	.00020	.01760
16.030	6.000	.84480	.24820	-.38970	-.10400	-.00190	.02710
	GRADIENT	.00051	.00019	-.00055	-.01791	-.00019	.00458

W2B1V1H2F(1,0) (RFH018) (08 JUL 76)

REFERENCE DATA

PARAMETRIC DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

MACH = .067 ELEVN = .000

RUN NO. 31/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.05140	.37290	-.47600	.11960	-.00380	-.02540
20.100	-4.000	1.04250	.37220	-.46880	.08690	-.00250	-.01840
20.100	-2.000	1.04670	.37630	-.46830	.04320	-.00070	-.00950
20.100	.000	1.03980	.37620	-.46170	-.00300	.00170	.00090
20.100	2.000	1.04630	.37630	-.46720	-.03310	.00430	.00970
20.100	4.000	1.05290	.37630	-.47310	-.07680	.00630	.01910
20.100	6.000	1.05120	.37330	-.47700	-.11520	.00660	.02610
	GRADIENT	.00102	.00041	-.00037	-.02018	.00113	.00471

W2B1V1H2F(1,+10) (RFH019) (08 JUL 76)

REFERENCE DATA

PARAMETRIC DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 32/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.07830	.04270	-.07120	-.00330	-.00100	.00130
.000	2.010	.17810	.04940	-.11830	-.00370	-.00100	.00080
.000	4.030	.29190	.05710	-.17050	.00130	-.00110	.00020
.000	5.870	.39330	.07270	-.22000	.00090	-.00140	-.00010
.000	8.000	.51060	.09980	-.27360	-.00210	-.00100	.00000
.000	10.010	.61630	.13740	-.32200	-.00250	-.00080	.00060
.000	12.010	.71830	.17480	-.36470	-.00540	-.00010	.00170
.000	14.000	.81930	.22420	-.41200	.00230	.00000	-.00010
.000	16.030	.92500	.28630	-.46230	-.00330	.00140	.00070
.000	18.010	1.04650	.34910	-.51900	-.00100	.00150	.00030
.000	20.100	1.15650	.42570	-.56670	.00140	.00330	-.00020
.000	22.030	1.18150	.47720	-.56020	-.00380	.00160	.00050
.000	23.980	1.14600	.51610	-.53110	-.00870	.00820	-.00070
.000	25.980	1.05470	.53280	-.46990	.00530	.00260	-.00300
.000	28.010	1.01030	.55640	-.43600	.00280	.00060	-.00260
	GRADIENT	.05301	.00357	-.02464	.00114	-.00000	-.00027

W231V1H2F(1.+10) (RFH020) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 33/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.14960	.04830	.09770	.00090	-.00040	.00030
.000	2.010	-.05320	.04910	.05250	.00060	-.00070	.00040
.000	4.030	.05840	.05090	.00320	-.00240	-.00030	.00000
.000	5.870	.15570	.06090	-.04170	-.00550	-.00040	.00130
.000	8.000	.26370	.07300	-.08920	.00220	-.00100	.00010
.000	10.010	.38190	.09920	-.14340	-.00890	.00000	.00090
.000	12.010	.49070	.13430	-.18960	-.00380	-.00050	.00140
.000	14.000	.59590	.17420	-.23640	-.00410	.00020	.00130
.000	16.030	.70270	.22330	-.28600	-.00170	.00070	.00050
.000	18.010	.82350	.27740	-.34200	.00870	.00050	-.00080
.000	20.100	.95520	.35220	-.40410	-.00250	.00240	.00000
.000	22.030	1.02890	.41170	-.43200	-.00800	.00460	.00030
.000	23.980	1.04290	.45900	-.42400	.00030	.00340	-.00130
.000	25.980	.97230	.47080	-.36920	.00360	.00350	-.00420
.000	28.010	.90320	.48500	-.32150	-.00130	.00430	-.00350
	GRADIENT	.05162	.00065	-.02345	-.00082	.00002	-.00007

W2B1V1H2F(1,+10) (RFH021) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH =	.067	ELEVN =	10.000
BETA =	.000		

RUN NO. 347 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.29870	.06060	-.23890	.00040	-.00210	.00040
.000	2.010	.39990	.07270	-.28850	.00280	-.00150	.00000
.000	4.030	.51500	.08610	-.34310	.00510	-.00190	-.00110
.000	5.870	.61740	.10910	-.39510	.00200	-.00210	.00020
.000	8.000	.73930	.14770	-.45250	.00160	-.00140	-.00020
.000	10.010	.83370	.19160	-.49500	.00400	-.00100	.00010
.000	12.010	.92010	.23840	-.53090	.00110	-.00020	.00010
.000	14.000	1.01810	.30180	-.57940	.00080	.00120	.00030
.000	16.030	1.12090	.37090	-.62970	-.00210	.00230	.00010
.000	18.010	1.22280	.43250	-.67470	.00020	.00150	-.00020
.000	20.100	1.27680	.69190	-.70030	-.00190	.00590	.00030
.000	22.030	1.25600	.54610	-.65480	-.00980	.00940	.00050
.000	23.980	1.20250	.58310	-.61580	-.00410	.00610	-.00140
.000	25.980	1.09800	.59910	-.55010	.00170	.00090	-.00300
.000	28.010	1.03710	.61650	-.50750	-.00310	.00420	-.00170
	GRADIENT	.05368	.00633	-.02586	.00117	.00005	-.00037

W2B1V1H2F(2.0) (RFH022) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 35/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02650	.03530	-.02220	.00250	-.00120	.00050
.000	2.010	.12780	.03550	-.07030	-.00050	-.00140	.00070
.000	4.030	.23800	.03880	-.12020	-.00090	-.00140	.00080
.000	5.870	.34070	.05510	-.17310	.00130	-.00110	.00020
.000	8.000	.46050	.07580	-.22710	.00090	-.00170	.00040
.000	10.010	.57760	.11360	-.28180	.00050	-.00090	.00040
.000	12.010	.67890	.15650	-.32850	.00020	-.00070	.00100
.000	14.000	.77260	.20020	-.37180	.00000	-.00110	.00060
.000	16.030	.87980	.25830	-.42300	-.00030	.00110	.00000
.000	18.010	.99090	.32330	-.47600	.00750	.00130	-.00020
.000	20.100	1.10570	.39600	-.52600	.00450	.00260	.00000
.000	22.030	1.13400	.43740	-.52250	-.00070	.00340	.00070
.000	23.980	1.12340	.49560	-.51460	-.00040	.00590	-.00230
.000	25.980	1.05040	.62560	-.47760	.01050	.00010	-.00240
.000	28.010	.99120	.55430	-.44100	-.00510	.00780	-.00200
	GRADIENT	.05248	.00087	-.02432	-.00084	-.00005	.00007

W2B1V1H2F(2.0) (RFH023) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 36/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03660	.03510	-.03060	.10080	.00390	-.02380
.000	-4.000	.02890	.03750	-.02540	.06530	.00210	-.01560
.000	-2.000	.02770	.03990	-.02390	.04070	.00020	-.00770
.000	.000	.02760	.04000	-.02290	-.00290	-.00110	.00170
.000	2.000	.02840	.03770	-.02430	-.04390	-.00320	.01070
.000	4.000	.02920	.03550	-.02840	-.07400	-.00440	.01870
.000	6.000	.03550	.03320	-.03200	-.10410	-.00650	.02620
	GRADIENT	.00006	-.00031	-.00032	-.01816	-.00082	.00435

W2B1V1H2F(2.0) (RFH023) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 37/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.58520	.11000	-.28890	.10730	.00440	-.02660
10.010	-4.000	.58110	.11410	-.28550	.07440	.00250	-.01910
10.010	-2.000	.57990	.11390	-.28300	.03880	.00040	-.00930
10.010	.000	.57610	.11570	-.28180	-.00480	-.00140	.00120
10.010	2.000	.57630	.11340	-.28070	-.03770	-.00390	.01110
10.010	4.000	.58170	.11210	-.28660	-.06790	-.00620	.01860
10.010	6.000	.58270	.11010	-.29160	-.11180	-.00740	.02750
	GRADIENT	-.00012	-.00023	.00001	-.01805	-.00108	.00479

RUN NO. 38/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.11430	.40150	-.53680	.11640	-.00140	-.02670
20.100	-4.000	1.10460	.40290	-.52880	.07550	-.00090	-.01850
20.100	-2.000	1.10780	.40670	-.52820	.04270	-.00080	-.00990
20.100	.000	1.10340	.40510	-.52780	.00450	.00180	-.00030
20.100	2.000	1.10120	.40440	-.52470	-.05010	.00390	.01170
20.100	4.000	1.09970	.40150	-.52580	-.08560	.00600	.02080
20.100	6.000	1.11110	.40080	-.53340	-.12130	.00590	.02790
	GRADIENT	-.00082	-.00025	.00048	-.02075	.00092	.00501

W2B1V1HIF(2.0) (RFH024) (08 JUL 76)

REFERENCE DATA

PARAMETRIC DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

MACH = .067 ELEVN = .000

RUN NO. 39/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03980	.03520	-.03320	.10620	.00250	-.02450
.000	-4.000	.03430	.03750	-.02860	.07620	.00100	-.01640
.000	-2.000	.03100	.03990	-.02560	.03520	.00000	-.00750
.000	.000	.03080	.04000	-.02600	.00520	-.00190	.00040
.000	2.000	.03270	.04010	-.02750	-.03300	-.00330	.00920
.000	4.000	.03360	.03780	-.02930	-.06850	-.00480	.01750
.000	6.000	.04080	.03560	-.03670	-.10140	-.00630	.02560
	GRADIENT	.00002	.00004	-.00016	-.01788	-.00074	.00422

RUN NO. 40/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.56780	.10440	-.27390	.10740	.00420	-.02610
10.010	-4.000	.56410	.10620	-.27090	.06640	.00250	-.01610
10.010	-2.000	.56360	.10850	-.26900	.03080	.00010	-.00790
10.010	.000	.56230	.10840	-.26890	-.00200	-.00160	.00060
10.010	2.000	.56570	.10570	-.26990	-.03490	-.00380	.01040
10.010	4.000	.56640	.10700	-.27360	-.07870	-.00540	.02040
10.010	6.000	.56900	.10280	-.27820	-.08710	-.00850	.02570
	GRADIENT	.00038	-.00001	-.00032	-.01779	-.00098	.00456

RUN NO. 41/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.11080	.39520	-.53580	.12730	-.00340	-.02680
20.100	-4.000	1.11300	.39860	-.53280	.08360	-.00210	-.01830
20.100	-2.000	1.11120	.40040	-.52850	.04810	-.00130	-.00990
20.100	.000	1.11220	.40340	-.52870	-.00360	.00250	.00130
20.100	2.000	1.10870	.39970	-.52820	-.04190	.00460	.01110
20.100	4.000	1.11120	.39820	-.53190	-.08290	.00650	.01940
20.100	6.000	1.10770	.39450	-.53190	-.11300	.00710	.02660
	GRADIENT	-.00030	-.00007	.00010	-.02115	.00115	.00482

W2B1V1H1F(2.0) (RFH025) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH =	.067	ELEVN =	.000
BETA =	.000		

RUN NO. 42/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.03290	.03770	-.02700	-.00840	-.00100	.00140
.000	2.010	.12780	.03540	-.06980	-.00050	-.00080	.00010
.000	4.030	.23370	.03840	-.11850	-.00360	-.00140	.00030
.000	5.870	.34060	.04800	-.16770	-.00670	-.00100	.00050
.000	8.000	.45670	.07290	-.22200	-.00170	-.00100	.00040
.000	10.010	.61780	.14700	-.30100	-.00490	-.00100	.00060
.000	12.010	.66850	.14940	-.31720	-.00510	-.00130	.00130
.000	14.000	.76250	.19750	-.36080	-.00530	-.00010	.00160
.000	16.030	.87130	.25340	-.41520	-.00570	-.00010	.00120
.000	19.010	.99860	.32090	-.47580	.00200	-.00010	.00040
.000	20.100	1.11540	.39460	-.52930	-.00910	.00360	.00110
.000	22.030	1.11230	.43100	-.50970	-.00610	.00320	.00100
.000	23.980	1.10670	.48300	-.50130	-.00050	.00250	-.00070
.000	25.980	1.02920	.51260	-.46310	-.00020	.00040	.00010
.000	28.010	.98100	.54620	-.43200	-.00790	.00430	-.00300
	GRADIENT	.04983	.00017	-.02271	.00119	-.00010	-.00027

W2B1V1SC1 (RFH026) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .057 ELEVN = .000
BETA = .000

RUN NO. 44/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02780	.03290	-.01800	-.00010	-.00220	.00160
.000	2.010	.12950	.04000	-.05420	-.00300	-.00100	.00120
.000	4.030	.23650	.04770	-.09190	-.00600	-.00080	.00140
.000	5.870	.33120	.05120	-.12320	.00190	-.00140	.00010
.000	8.000	.45400	.07900	-.16550	-.00100	-.00150	.00030
.000	10.010	.56150	.11700	-.20470	-.00390	-.00100	.00090
.000	12.010	.67020	.16320	-.24230	.00400	-.00150	-.00020
.000	14.000	.76840	.20770	-.27700	.00110	-.00120	.00090
.000	16.030	.86800	.26590	-.31230	.00100	-.00040	.00070
.000	18.010	.95820	.32590	-.34320	-.00180	.00000	.00180
.000	20.100	1.04640	.39510	-.37670	.00070	-.00020	.00070
.000	22.030	1.12210	.46650	-.40570	-.00470	.00310	.00070
.000	23.980	1.21930	.54760	-.44710	-.00760	.00440	.00070
.000	25.980	1.26530	.62440	-.45960	-.00220	.00180	.00040
.000	28.010	1.26750	.69290	-.45070	.01390	-.00610	.00050
	GRADIENT	.05179	.00367	-.01834	-.00146	.00035	-.00005

W2B1V1SC1 (RFH027) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .057 ELEVN = .000

RUN NO. 45/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.04110	.03040	-.02710	.09810	.00400	-.02320
.000	-4.000	.03790	.03280	-.02120	.06990	.00220	-.01540
.000	-2.000	.03560	.03520	-.02020	.03530	.00020	-.00760
.000	.000	.03440	.03520	-.01810	-.00280	-.00140	.00060
.000	2.000	.03410	.03300	-.02080	-.03570	-.00360	.00930
.000	4.000	.03700	.03310	-.02610	-.06850	-.00480	.01740
.000	6.000	.04330	.03080	-.02970	-.09860	-.00670	.02440
	GRADIENT	-.00016	-.00008	-.00052	-.01639	-.00089	.00412

W2B1V1SC1 (RFH027) (08 JUL 76)

REFERENCE DATA

PARAMETRIC DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

MACH = .067 ELEVN = .000

RUN NO. 46/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.57700	.11250	-.2.370	.09740	.00730	-.02540
10.010	-4.000	.57340	.11420	-.20920	.06450	.00440	-.01610
10.010	-2.000	.57070	.11620	-.20630	.02890	.00120	-.00720
10.010	.000	.56940	.11610	-.20660	-.00660	-.00110	.00160
10.010	2.000	.56700	.11570	-.20730	-.03410	-.00500	.00990
10.010	4.000	.57030	.11410	-.21160	-.06980	-.00760	.01930
10.010	6.000	.57150	.11200	-.21380	-.09730	-.01040	.02620
	GRADIENT	-.00049	-.00004	-.00029	-.01658	-.00154	.00439

RUN NO. 47/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.05370	.38770	-.38810	.09340	-.00430	-.01990
20.100	-4.000	1.05090	.38920	-.38280	.06610	-.00450	-.01480
20.100	-2.000	1.04430	.39180	-.37590	.02520	-.00290	-.00540
20.100	.000	1.04520	.39210	-.37640	.00070	.00050	.00100
20.100	2.000	1.04180	.39100	-.37750	-.02930	.00220	.00830
20.100	4.000	1.03730	.38590	-.37700	-.06740	.00610	.01630
20.100	6.000	1.03760	.38470	-.38530	-.08400	.00470	.02150
	GRADIENT	-.00148	-.00027	.00050	-.01607	.00131	.00379

W2B1V1SC1 (RFH02B) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH .067 ELEVN = 10.000
BETA .000

RUN NO. 48/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.27590	.05560	-.20710	-.00460	-.00240	.00160
.000	2.010	.37230	.06900	-.24240	-.00210	-.00200	.00000
.000	4.030	.47720	.08280	-.28140	-.00230	-.00200	.00000
.000	5.870	.58280	.10240	-.31990	.00010	-.00200	-.00040
.000	8.000	.70380	.13710	-.36260	-.00010	-.00200	-.00030
.000	10.010	.80390	.18300	-.39770	-.00300	-.00140	.00020
.000	12.010	.89310	.23390	-.42890	-.00040	-.00200	.00030
.000	14.000	.98630	.29260	-.45860	-.00040	.00040	.00030
.000	16.030	1.07450	.35600	-.48910	-.00060	-.00020	.00110
.000	18.010	1.15120	.41980	-.51360	-.00060	.00040	.00080
.000	20.100	1.21810	.49180	-.53410	-.00060	.00080	.00060
.000	22.030	1.28870	.57080	-.55940	-.00880	.00270	.00190
.000	23.980	1.33840	.64020	-.57220	-.00070	.00130	.00030
.000	25.980	1.36080	.71120	-.57040	-.01410	.00440	.00220
.000	28.010	1.33070	.76460	-.54340	-.01650	.00450	.00390
	GRADIENT	.04995	.00675	-.01844	.00057	.00010	-.00040

(RFH029) (08 JUL 76)

W2B1V1SC1

REFERENCE DATA

SREF	=	3420.0000	SQ.FT.	XMRP =	714.8000 IN.XO
LREF	=	507.1000	IN.	YMRP =	.0000 IN.YO
BREF	=	1115.8000	IN.	ZMRP =	400.0000 IN.ZO
SCALE	=	.0500			

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 49/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.21570	.03820	.17110	-.00380	-.00130	.00090
.000	2.010	-.12070	.03660	.13540	-.00670	-.00120	.00110
.000	4.030	-.00900	.03580	.09690	-.00420	-.00020	.00040
.000	5.870	.08290	.04060	.06500	-.00980	-.00090	.00180
.000	8.000	.20390	.05390	.02680	-.00460	-.00130	.00060
.000	10.010	.31870	.07960	-.01200	-.00750	-.00040	.00120
.000	12.010	.42800	.11480	-.05410	-.00500	-.00070	.00120
.000	14.000	.54220	.15210	-.09450	-.01070	.00000	.00180
.000	16.030	.64300	.19710	-.13270	-.00810	.00080	.00210
.000	18.010	.74800	.25350	-.16980	-.00290	-.00020	.00170
.000	20.100	.84950	.31150	-.20590	-.00040	-.00010	.00100
.000	22.030	.93990	.37860	-.24230	-.00600	.00090	.00140
.000	23.980	1.03530	.44870	-.28030	-.00620	.00150	.00170
.000	25.980	1.09420	.52400	-.30350	-.00090	-.00020	.00000
.000	28.010	1.12510	.59180	-.31010	-.00350	.00140	.00150
	GRADIENT	.05129	-.00060	-.01841	-.00010	.00027	-.00012

W2B1V1SC2 (RFH030) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 50/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.03880	.05160	-.01990	-.00550	-.00100	.00130
.000	2.010	.12920	.03050	-.04210	-.01110	-.00080	.00200
.000	4.030	.24410	.04570	-.07180	-.00840	-.00110	.00140
.000	5.870	.34490	.05710	-.10050	-.00310	-.00150	.00020
.000	8.000	.47130	.08340	-.13740	-.00600	-.00140	.00040
.000	10.010	.58310	.11800	-.17020	-.00890	-.00070	.00150
.000	12.010	.69230	.16270	-.20530	-.00080	-.00090	.00020
.000	14.000	.79910	.21000	-.23980	-.00920	-.00040	.00150
.000	16.030	.90190	.27020	-.27300	.00150	-.00030	.00060
.000	18.010	1.00160	.33220	-.31390	.00400	-.00050	.00000
.000	20.100	1.11680	.41300	-.36110	-.00160	-.00020	.00130
.000	22.030	1.21390	.49840	-.40190	-.00180	.00140	.00060
.000	23.980	1.28680	.57720	-.42490	-.00190	.00010	.00060
.000	25.980	1.32200	.65420	-.43170	-.00720	.00180	.00000
.000	28.010	1.35900	.73580	-.43640	.00650	.00050	-.00300
	GRADIENT	.05095	-.00146	-.01288	-.00072	-.00002	.00002

W2B1V1SC2 (RFH031) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 51/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.04680	.02800	-.02320	.10090	.00390	-.02330
.000	-4.000	.03910	.03040	-.01940	.07090	.00200	-.01630
.000	-2.000	.04000	.03280	-.01990	.03530	.00060	-.00810
.000	.000	.03780	.03290	-.01640	-.00820	-.00100	.00190
.000	2.000	.03750	.03300	-.01820	-.05200	-.00300	.01090
.000	4.000	.04160	.03070	-.02260	-.06840	-.00480	.01740
.000	6.000	.04240	.02850	-.02670	-.09310	-.00680	.02310
	GRADIENT	.00012	.00004	-.00023	-.01829	-.00086	.00432

W2B1V1SC2 (RFH031) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 52/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.59910	.11110	-.17610	.10070	.00860	-.02640
10.010	-4.000	.59390	.11500	-.17370	.05690	.00590	-.01620
10.010	-2.000	.59170	.11470	-.17110	.04300	.00110	-.01040
10.010	.000	.58990	.11690	-.17200	-.00070	-.00140	.00020
10.010	2.000	.59010	.11460	-.17230	-.03093	-.00480	.00910
10.010	4.000	.59190	.11510	-.17560	-.07210	-.00800	.01820
10.010	6.000	.59560	.11110	-.17980	-.10230	-.01120	.02650
	GRADIENT	-.00028	.00001	-.00025	-.01659	-.00168	.00441

RUN NO. 53/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.12320	.41260	-.36540	.09440	.00790	-.02660
20.100	-4.000	1.12220	.41480	-.36780	.07240	.00550	-.01960
20.100	-2.000	1.11720	.41560	-.36280	.03400	.00290	-.00980
20.100	.000	1.10930	.41520	-.35620	.00380	-.00020	.00050
20.100	2.000	1.12180	.41750	-.36440	-.04010	-.00270	.01230
20.100	4.000	1.12240	.41530	-.36570	-.06490	-.00580	.02130
20.100	6.000	1.12070	.41240	-.37050	-.09520	-.00800	.02850
	GRADIENT	.00025	.00014	.00013	-.01743	-.00141	.00519

W2B1V1SC3 (RFH032) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 54/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.04030	.03500	-.02110	.09820	.00430	-.02320
.000	-4.000	.03590	.03740	-.01750	.07640	.00200	-.01600
.000	-2.000	.03590	.03980	-.01430	.03540	.00030	-.00810
.000	.000	.03130	.03990	-.01430	-.00550	-.00140	.00180
.000	2.000	.03440	.03760	-.01530	-.03010	-.00370	.00860
.000	4.000	.04280	.03770	-.01970	-.06300	-.00550	.01620
.000	6.000	.04360	.03550	-.02430	-.10130	-.00630	.02340
	GRADIENT	.00061	-.00008	-.00027	-.01721	-.00095	.00405

RUN NO. 55/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.60800	.11720	-.15610	.09560	.00980	-.02600
10.010	-4.000	.60220	.11860	-.15100	.07360	.00530	-.01890
10.010	-2.000	.60160	.12090	-.15010	.03790	.00240	-.00950
10.010	.000	.59820	.12040	-.14880	-.00580	-.00070	.00130
10.010	2.000	.60110	.12100	-.15130	-.02790	-.00480	.00890
10.010	4.000	.60230	.11900	-.15500	-.05810	-.00840	.01670
10.010	6.000	.60450	.11720	-.15780	-.10480	-.01160	.02380
	GRADIENT	-.00001	.00005	-.00046	-.01646	-.00173	.00448

RUN NO. 56/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.14970	.41700	-.34340	.10030	.00890	-.03070
20.100	-4.000	1.14690	.41850	-.33710	.06730	.00500	-.02050
20.100	-2.000	1.13930	.42070	-.32740	.02630	.00380	-.01000
20.100	.000	1.13480	.41920	-.33080	-.00110	.00100	-.00210
20.100	2.000	1.13870	.42070	-.33240	-.03110	-.00150	.00790
20.100	4.000	1.14100	.41930	-.33980	-.05900	-.00420	.01980
20.100	6.000	1.14440	.41820	-.34550	-.08380	-.00700	.02760
	GRADIENT	-.00062	.00008	-.00052	-.01551	-.00118	.00492

W2B1V1SC3 (RFH033) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 57/ 0 RN/L = .00 GRADIENT INTERVAL -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02590	.03280	-.01180	-.00270	-.00110	.00170
.000	2.010	.12940	.03980	-.03270	-.00270	-.00060	.00110
.000	4.030	.24320	.05250	-.05890	-.00280	-.00050	.00060
.000	5.870	.35050	.06450	-.08390	-.00010	-.00040	.00050
.000	8.000	.48010	.08150	-.11730	-.00300	-.00090	.00070
.000	10.010	.59440	.12930	-.14950	-.00310	-.00060	.00010
.000	12.010	.70340	.17430	-.18040	-.00040	-.00050	.00000
.000	14.000	.81680	.22130	-.21480	-.00050	.00060	.00030
.000	16.030	.91700	.28150	-.24880	-.00340	.00060	.00090
.000	18.010	1.02680	.35480	-.28860	.00450	.00050	-.00100
.000	20.100	1.12360	.42510	-.32620	-.00110	.00070	-.00320
.000	22.030	1.23320	.51080	-.36910	.00400	.00000	-.00130
.000	23.980	1.30700	.59330	-.38490	.00140	.00110	-.00130
.000	25.980	1.36990	.68750	-.40210	.00950	-.00150	-.00390
.000	28.010	1.36780	.75560	-.37830	.00220	.00800	-.00600
	GRADIENT	.05392	.00489	-.01169	-.00002	.00015	-.00027

W2B1V1GC1 (RFH034) (08 JUL 76)

REFERENCE DATA

SREF	= 3420.0000 SQ.FT.	XMRP	= 714.8000	IN.XO	
LREF	= 507.1000 IN.	YMRP	= .0000	IN.YO	
BREF	= 1115.8000 IN.	ZMRP	= 400.0000	IN.ZO	
SCALE	= .0500				

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 60/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.03000	.03520	-.01970	.00260	-.00080	.00100
.000	2.010	.12860	.03760	-.05170	-.00030	-.00170	.00170
.000	4.030	.23680	.04770	-.08490	-.00040	-.00090	.00120
.000	5.870	.34070	.05920	-.11720	.00200	-.00140	-.00030
.000	8.000	.46160	.08460	-.15180	.00190	-.00100	-.00040
.000	10.010	.58040	.12250	-.18800	.00170	-.00150	-.00020
.000	12.010	.68920	.16930	-.21810	-.00370	.00010	.00060
.000	14.000	.80290	.22070	-.24900	-.00370	.00060	.00050
.000	16.030	.93180	.28630	-.29340	-.00390	.00200	.00000
.000	18.010	1.07230	.36030	-.33970	.00130	.00190	-.00010
.000	20.100	1.21480	.44650	-.38640	.00100	.00190	-.00070
.000	22.030	1.31330	.52580	-.40430	.00380	.00200	-.00040
.000	23.980	1.37610	.59840	-.40240	.00140	.00460	.00000
.000	25.960	1.40340	.67490	-.39220	.00430	.00140	.00070
.000	28.010	1.46090	.76550	-.40210	-.00080	.00440	.00160
	GRADIENT	.05132	.00310	-.01618	-.00074	-.00002	.00005

W2B1V1GC3 (RFH035) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 61/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02340	.03280	-.01770	.00260	-.00090	.00100
.000	2.010	.12640	.03520	-.05330	-.00570	-.00090	.00190
.000	4.030	.22160	.04190	-.08730	-.00050	-.00030	.00060
.000	5.870	.32790	.05090	-.12300	-.00070	-.00060	.00010
.000	8.000	.45360	.07420	-.16390	.00170	-.00100	-.00030
.000	10.010	.56990	.11370	-.20560	.00150	-.00090	-.00030
.000	12.010	.67770	.16000	-.24070	.00080	-.00040	-.00110
.000	14.000	.79180	.21350	-.28070	.00120	.00030	.00000
.000	16.030	.92450	.27730	-.33270	-.00170	.00230	-.00050
.000	18.010	1.05880	.34910	-.38460	.00340	.00160	-.00160
.000	20.100	1.19560	.43760	-.43720	.00040	.00210	-.00060
.000	22.030	1.28990	.51460	-.46460	.00850	.00150	-.00190
.000	23.980	1.35480	.59250	-.47340	.00580	.00060	-.00090
.000	25.980	1.40060	.66680	-.47720	.00070	.00580	-.00350
.000	28.010	1.43610	.75330	-.47830	.00070	.00290	-.00280
	GRADIENT	.04918	.00223	-.01727	-.00077	.00015	-.00010

W2B1V1GC2 (RFH036) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 62/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.03420	.03530	-.02190	-.01100	-.00100	.00200
.000	2.010	.12860	.03760	-.05220	-.00300	-.00100	.00120
.000	4.030	.23140	.04500	-.08670	-.00860	-.00010	.00190
.000	5.870	.33330	.05380	-.12060	-.00880	-.00040	.00140
.000	8.000	.45510	.08140	-.15910	-.00360	-.00040	.00080
.000	10.010	.57450	.12160	-.19880	-.00100	-.00080	-.00020
.000	12.010	.67890	.16730	-.23040	-.00110	.00000	.00010
.000	14.000	.79360	.21860	-.26420	-.00390	.00120	.00040
.000	16.030	.92290	.28160	-.31650	-.00150	.00140	-.00020
.000	18.010	1.06110	.35200	-.36430	.00360	.00180	-.00010
.000	20.100	1.19870	.43590	-.41060	-.00470	.00180	.00010
.000	22.030	1.30220	.51930	-.44120	-.00200	.00270	-.00040
.000	23.980	1.36320	.59320	-.44300	.00610	-.00060	.00000
.000	25.980	1.40710	.67730	-.44120	-.00150	.00030	-.00150
.000	28.010	1.43400	.75170	-.43780	-.00420	.00170	.00090
	GRADIENT	.04893	.00241	-.01608	.00059	.00022	-.00002

W2B1V1GC2 (RFH037) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 63/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03880	.03280	-.02880	.09540	.00400	-.02310
.000	-4.000	.03240	.03510	-.02230	.06260	.00220	-.01440
.000	-2.000	.03120	.03520	-.02120	.03260	.00060	-.00750
.000	.000	.02780	.03760	-.01870	-.00550	-.00110	.00130
.000	2.000	.03410	.03530	-.02230	-.03840	-.00260	.00880
.000	4.000	.03260	.03310	-.02620	-.06850	-.00420	.01800
.000	6.000	.03880	.03030	-.03120	-.10130	-.00530	.02450
	GRADIENT	.00016	-.00019	-.00044	-.01666	-.00080	.00405

W2B1V1GC2 (RFH037) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 64/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.58330	.11110	-.20420	.09480	.00870	-.02560
10.010	-4.000	.58290	.11340	-.20130	.06200	.00570	-.01680
10.010	-2.000	.57700	.11480	-.19820	.02630	.00230	-.00840
10.010	.000	.57420	.11680	-.19760	-.00100	-.00080	-.00020
10.010	2.000	.57670	.11970	-.19970	-.04490	-.00420	.00950
10.010	4.000	.57690	.11750	-.20190	-.06700	-.00770	.01700
10.010	6.000	.58150	.11370	-.20800	-.10540	-.01050	.02490
	GRADIENT	-.00061	.00066	-.00018	-.01646	-.00166	.00427

RUN NO. 65/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	1.17610	.41990	-.40440	.11020	.00170	-.02810
20.100	-4.000	1.18360	.42770	-.40610	.06910	.00050	-.01870
20.100	-2.000	1.19360	.43150	-.40870	.04170	.00050	-.01020
20.100	.000	1.19660	.43520	-.41090	-.00190	.00250	-.00080
20.100	2.000	1.19420	.43190	-.40960	-.04300	.00300	.00960
20.100	4.000	1.18260	.42520	-.40330	-.07300	.00390	.01840
20.100	6.000	1.17220	.42140	-.40010	-.10590	.00260	.02710
	GRADIENT	-.00007	-.00023	.00024	-.01844	.00047	.00470

W2B1V1GC2 (RFH038) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 66/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.27020	.05330	-.21040	-.00470	-.00240	.00100
.000	2.010	.36920	.06190	-.24470	-.00210	-.00200	.00050
.000	4.030	.47660	.07570	-.27960	-.00230	-.00200	.00060
.000	5.870	.57950	.09260	-.31600	.00010	-.00200	.00000
.000	8.000	.71040	.13800	-.36170	-.00550	-.00120	-.00030
.000	10.010	.81210	.18190	-.39260	-.00010	-.00110	.00000
.000	12.010	.90880	.23710	-.41650	-.00010	-.00030	.00000
.000	14.000	1.01810	.29800	-.45340	-.00030	.00000	-.00010
.000	16.030	1.15780	.37760	-.51210	-.00320	.00250	-.00020
.000	18.010	1.28660	.45670	-.55730	-.00350	.00100	.00010
.000	20.100	1.41230	.54570	-.59740	.00170	.00180	.00020
.000	22.030	1.46050	.61250	-.58870	-.00600	.00390	-.00050
.000	23.980	1.49980	.69380	-.58070	.00220	.00170	-.00050
.000	25.980	1.51420	.76720	-.56070	-.00540	.00500	.00020
.000	28.010	1.53020	.84390	-.55030	.00810	-.00350	.00110
	GRADIENT	.05122	.00556	-.01717	.00059	.00010	-.00010

W2B1V1GC2 (RFH039) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 67/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.21890	.03590	.17280	-.00370	-.00070	.00090
.000	2.010	-.11810	.02960	.13830	-.00670	-.00090	.00160
.000	4.030	-.01730	.03280	.10420	-.00660	-.00040	.00160
.000	5.870	.08250	.03810	.07400	-.00700	-.00030	.00160
.000	8.000	.20040	.05090	.03840	-.00440	.00000	.00090
.000	10.010	.31910	.07470	.00160	-.00730	-.00030	.00000
.000	12.010	.44260	.11290	-.03950	-.01020	.00000	.00110
.000	14.000	.55410	.14990	-.07080	-.00220	-.00010	.00040
.000	16.030	.67640	.20400	-.11270	-.00510	.00060	.00020
.000	18.010	.81710	.26340	-.15800	.00290	.00080	-.00120
.000	20.100	.96200	.34000	-.21020	.00000	.00240	.00000
.000	22.030	1.08070	.42030	-.24970	.00510	.00190	-.00060
.000	23.980	1.18020	.49740	-.27700	.00510	.00220	-.00090
.000	25.980	1.23330	.57550	-.28010	.00510	.00000	-.00050
.000	28.010	1.27950	.64410	-.28450	.00530	.00160	-.00090
	GRADIENT	.05002	-.00077	-.01702	-.00077	.00007	.00017

W2B1V1 (RFH040) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 68/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02560	.03520	-.01890	-.00280	-.00080	.00120
.000	2.010	.12030	.04450	-.05985	-.00310	-.00070	.00120
.000	4.030	.22530	.04240	-.10350	-.00340	-.00030	.00130
.000	5.870	.32620	.04630	-.14700	-.00100	-.00070	.00020
.000	8.000	.43930	.07730	-.20000	-.00140	-.00020	.00080
.000	10.010	.55200	.10870	-.25000	.00090	-.00060	.00030
.000	12.010	.65020	.15000	-.29510	-.00200	-.00010	.00200
.000	14.000	.74840	.19380	-.34190	-.00510	.00080	.00130
.000	16.030	.86380	.25350	-.40350	-.00010	.00050	.00130
.000	18.010	.98930	.32270	-.46550	.00210	.00050	.00130
.000	20.100	1.10580	.39340	-.51740	-.00070	.00390	.00130
.000	22.030	1.13660	.44340	-.51740	-.00590	.00740	.00040
.000	23.980	1.07500	.47890	-.47320	.00780	-.00030	.00020
.000	25.980	1.03370	.51460	-.45270	.00520	-.00100	-.00050
.000	28.010	.97070	.54060	-.42280	.00550	-.00120	-.00230
	GRADIENT	.04956	.00178	-.02099	-.00015	.00012	.00002

WIBIV1 (RFH041) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 75/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02880	.02820	-.02080	-.00560	-.00140	.00130
.000	2.010	.12700	.03300	-.06540	-.00860	-.00090	.00200
.000	4.030	.22710	.04030	-.11380	-.00630	-.00120	.00150
.000	5.870	.31690	.04550	-.15750	-.00840	-.00140	.00220
.000	8.000	.42800	.06640	-.21140	-.00710	-.00140	.00170
.000	10.010	.53550	.09650	-.26380	-.00470	-.00110	.00120
.000	12.010	.62700	.13340	-.31330	-.00780	-.00060	.00180
.000	14.000	.70860	.17700	-.35870	-.00270	-.00020	.00050
.000	16.030	.76700	.22830	-.39910	-.00560	.00270	.00080
.000	18.010	.77870	.27620	-.41310	-.00860	-.00030	.00260
.000	20.100	.81520	.32660	-.43720	-.00500	.00120	.00080
.000	22.030	.79140	.36410	-.43430	-.01130	.00350	.00170
.000	23.980	.77670	.38990	-.43140	-.00860	.00120	.00200
.000	25.980	.76050	.42870	-.43010	-.02750	.00660	.00600
.000	28.010	.77860	.47900	-.45340	-.01670	.00620	.00140
	GRADIENT	.04921	.00300	-.02308	-.00017	.00005	.00005

WIBIV1 (RFH042) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 76/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03880	.02580	-.02860	.10080	.00360	-.02380
.000	-4.000	.03230	.03050	-.02450	.07080	.00200	-.01680
.000	-2.000	.03000	.03050	-.02190	.02980	.00060	-.00740
.000	.000	.03200	.03290	-.02210	-.00560	-.00070	.00230
.000	2.000	.03290	.03060	-.02300	-.02750	-.00310	.00850
.000	4.000	.03590	.02840	-.02680	-.06850	-.00450	.01900
.000	6.000	.03980	.02620	-.03150	-.09530	-.00610	.02480
	GRADIENT	.00051	-.00021	-.00029	-.01679	-.00083	.00427

WIBIV1 (RFH042) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 77/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.54600	.08870	-.27130	.09910	.00390	-.02410
10.010	-4.000	.54060	.08780	-.26710	.06080	.00250	-.01590
10.010	-2.000	.54360	.09550	-.26710	.03890	-.00030	-.00920
10.010	.000	.53780	.08980	-.26360	-.00470	-.00120	.00120
10.010	2.000	.54520	.09600	-.26940	-.04040	-.00250	.01140
10.010	4.000	.54390	.09590	-.27120	-.06780	-.00480	.01720
10.010	6.000	.54820	.09440	-.27600	-.10070	-.00630	.02520
	GRADIENT	.00041	.00083	-.00053	-.01682	-.00084	.00434

RUN NO. 78/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	.84150	.32120	-.44970	.08150	.00330	-.01280
20.100	-4.000	.82190	.32400	-.44360	.05680	.00110	-.00820
20.100	-2.000	.81620	.32700	-.43970	.03490	-.00030	-.00340
20.100	.000	.80020	.32360	-.43060	-.00320	-.00030	.00240
20.100	2.000	.81180	.32300	-.43580	-.02260	-.00260	.00520
20.100	4.000	.81730	.32260	-.44310	-.05280	-.00370	.01070
20.100	6.000	.84060	.32130	-.45420	-.08000	.00270	.01270
	GRADIENT	-.00068	-.00034	.00024	-.01383	-.00059	.00232

W1B1V1 (RFH043) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 79/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.21560	.03350	.17310	-.00920	-.00060	.00210
.000	2.010	-.11770	.03440	.12590	-.00410	-.00090	.00100
.000	4.030	-.01930	.02830	.08020	-.01530	-.00060	.00250
.000	5.870	.07270	.03040	.03760	-.01300	-.00090	.00200
.000	8.000	.18070	.04650	-.01510	-.00790	-.00060	.00190
.000	10.010	.28930	.06080	-.06580	-.00560	-.00130	.00140
.000	12.010	.39050	.09090	-.12120	-.00600	-.00060	.00140
.000	14.000	.48900	.12290	-.17430	-.00090	-.00050	.00020
.000	16.030	.56580	.17130	-.22530	-.00680	.00100	.00170
.000	18.010	.61560	.21920	-.26390	-.00440	-.00010	.00090
.000	20.109	.66100	.26390	-.29300	.00620	-.00140	-.00110
.000	22.030	.64520	.29860	-.29800	-.01010	.00140	.00350
.000	23.980	.65150	.32520	-.30300	-.02340	.01040	.00150
.000	25.980	.62590	.35670	-.29810	.01150	-.00450	.00330
.000	28.010	.64310	.39500	-.31700	-.00490	-.00190	.00270
	GRADIENT	.04871	-.00129	-.02305	-.00152	.00000	.00010

WIBIV1 (RFH044) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 80/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.27650	.05110	-.21780	.00060	-.00250	-.00010
.000	2.010	.37490	.05990	-.26430	.00030	-.00240	.00100
.000	4.030	.47330	.06880	-.31280	-.00280	-.00240	.00070
.000	5.870	.57590	.08570	-.36040	-.00010	-.00270	.00080
.000	8.000	.68270	.11820	-.41650	-.00350	-.00160	.00090
.000	10.010	.78150	.15840	-.46520	-.00120	-.00190	.00100
.000	12.010	.86440	.19770	-.50940	.00110	-.00200	.00050
.000	14.000	.90540	.25180	-.53520	.00360	-.00290	.00080
.000	16.030	.93360	.30450	-.55630	-.00180	.00020	.00180
.000	18.010	.94840	.35500	-.56920	.00330	-.00530	.00190
.000	20.100	.92410	.39760	-.55920	-.00170	.00110	.00260
.000	22.030	.85450	.42090	-.52110	-.00950	.00070	.00360
.000	23.980	.86220	.45460	-.53380	-.00690	.00030	.00490
.000	25.980	.86710	.50780	-.54280	-.02560	.01080	.00400
.000	28.010	.86500	.55780	-.55520	.00940	.00110	-.00020
	GRADIENT	.04883	.00439	-.02357	-.00084	.01002	.00020

WIB1V1GC2 (RFH045) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 81/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.27210	.05110	-.21790	.00060	-.00220	.00030
.000	2.010	.36880	.06190	-.25710	.00310	-.00180	-.00010
.000	4.030	.47470	.07810	-.29320	-.00520	-.00160	.00070
.000	5.870	.58300	.09550	-.33090	.00270	-.00180	-.00100
.000	8.000	.70200	.12990	-.37390	.00520	-.00150	-.00110
.000	10.010	.80960	.17220	-.41120	.00220	-.00120	-.00150
.000	12.010	.90920	.21830	-.44600	.00200	-.00170	-.00080
.000	14.000	.98960	.27640	-.46920	-.00070	-.00210	.00000
.000	16.030	1.03980	.33870	-.47950	-.00060	-.00170	-.00010
.000	18.010	1.08710	.39640	-.48890	.00200	-.00220	.00050
.000	20.100	1.12110	.45850	-.48790	.00500	-.00100	.00060
.000	22.030	1.12370	.51350	-.47030	.01040	-.00740	.00420
.000	23.980	1.13950	.56620	-.45710	.01340	-.00780	.00330
.000	25.980	1.10920	.61860	-.42980	-.00750	.00320	.00360
.000	28.010	1.13010	.68080	-.43430	.00320	-.00040	.00510
	GRADIENT	.05027	.00670	-.01869	-.00144	.00015	.00010

WIBIVIGC2 (RFH046) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 82/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.22340	.03360	.17230	-.00100	-.00110	.00080
.000	2.010	-.12270	.02950	.13440	-.00940	-.00080	.00170
.000	4.030	-.02110	.03500	.09690	-.00970	-.00110	.00120
.000	5.870	.07630	.03050	.06590	-.00170	-.00090	.00040
.000	8.000	.20220	.04900	.02530	-.00730	-.00050	.00120
.000	10.010	.31360	.06440	-.01060	-.00480	-.00030	.00050
.000	12.010	.42650	.09530	-.05310	-.00230	-.00070	.00000
.000	14.000	.53770	.13880	-.09310	.00010	-.00080	-.00050
.000	16.030	.63420	.18480	-.12690	.00000	-.00120	.00020
.000	18.010	.73080	.24300	-.16440	-.00560	.00030	.00160
.000	20.100	.79940	.30050	-.18420	-.00020	-.00060	.00230
.000	22.030	.84580	.35280	-.19680	-.00030	-.00120	.00320
.000	23.980	.88150	.40790	-.19950	-.00280	.00040	.00320
.000	25.980	.90610	.46530	-.20700	.00010	.00490	-.00390
.000	28.010	.94280	.52850	-.21810	.00000	.00320	.00210
	GRADIENT	.05020	.00035	-.01871	-.00216	-.00000	.00010

W1B1V1GC2 (RFH047) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 83/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02650	.02830	-.02250	-.00840	-.00140	.00250
.000	2.010	.12300	.03050	-.05810	-.00580	-.00070	.00080
.000	4.030	.22690	.04010	-.09560	-.00600	-.00050	.00140
.000	5.870	.33320	.04920	-.13210	-.00820	-.00100	.00020
.000	8.000	.44960	.06890	-.16990	-.00370	-.00020	.00020
.000	10.010	.56370	.10320	-.20980	-.00120	-.00090	-.00020
.000	12.010	.66890	.14150	-.24820	-.00150	-.00120	.00000
.000	14.000	.77150	.19410	-.28260	-.00430	-.00030	.00030
.000	16.030	.84510	.24710	-.30530	-.00440	-.00020	.00030
.000	18.010	.93390	.31560	-.34030	-.00180	-.00040	.00150
.000	20.100	.97260	.37030	-.34350	.00090	.00030	.00050
.000	22.030	.99700	.42550	-.33890	.00100	-.00110	.00280
.000	23.980	1.03530	.48530	-.34140	-.00140	.00080	.00260
.000	25.980	1.02880	.53690	-.33220	-.00960	-.00080	.00920
.000	28.010	1.05920	.60500	-.34050	-.00650	.00330	.00200
	GRADIENT	.04973	.00293	-.01814	.00059	.00022	-.00027

W1B1V1GC2 (RFH048) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 84/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	.03660	.03510	-.02970	.09530	.00330	-.02310
.000	-4.000	.03760	.03750	-.02750	.06810	.00210	-.01510
.000	-2.000	.03650	.03990	-.02410	.02980	.00030	-.00790
.000	.000	.03410	.04000	-.02620	-.00290	-.00140	.00120
.000	2.000	.03500	.03770	-.02710	-.03570	-.00300	.00880
.000	4.000	.03580	.03780	-.02900	-.07400	-.00410	.01820
.000	6.000	.04420	.03560	-.03410	-.10410	-.00600	.02570
	GRADIENT	-.00025	-.00008	-.00030	-.01748	-.00078	.00416

W1B1V1GC2 (RFH048) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000

RUN NO. 85/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.57660	.10060	-.21070	.09460	.00780	-.02430
10.010	-4.000	.57150	.10450	-.21470	.06170	.00470	-.01600
10.010	-2.000	.56810	.10390	-.21300	.03700	.00160	-.00910
10.010	.000	.56770	.09920	-.21090	-.00130	-.00170	-.00060
10.010	2.000	.57200	.10480	-.21370	-.03690	-.00390	.00870
10.010	4.000	.57200	.10260	-.21770	-.07810	-.00700	.01840
10.010	6.000	.57530	.10[illegible]	-.22110	-.10930	-.00930	.02590
	GRADIENT	.00024	-.00015	-.00034	-.01767	-.00144	.00433

RUN NO. 86/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	.99690	.38180	-.36710	.09800	-.00610	-.01040
20.100	-4.000	.99220	.38510	-.36280	.04980	-.00380	-.00300
20.100	-2.000	.96450	.37980	-.34450	.02810	-.00300	-.00080
20.100	.000	.96850	.37880	-.34140	.00090	-.00010	.00180
20.100	2.000	.98420	.38220	-.35370	-.03440	.00530	.00380
20.100	4.000	.98590	.38290	-.35890	-.06180	.00660	.00610
20.100	6.000	.98920	.37920	-.36540	-.08910	.00690	.01020
	GRADIENT	.00036	-.00010	-.00007	-.01428	.00145	.00114

WIBIVIGC1 (RFH049) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 88/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02320	.03060	-.02090	-.00830	-.00140	.00190
.000	2.010	.12630	.03290	-.05700	.00500	-.00120	.00040
.000	4.030	.23340	.04280	-.09340	-.00060	-.00140	-.00030
.000	5.870	.33120	.05120	-.12370	.00060	-.00120	-.00100
.000	8.000	.45690	.07460	-.16460	-.00090	-.00100	-.00080
.000	10.010	.56670	.10130	-.20060	-.00650	-.00110	.00000
.000	12.010	.67870	.14580	-.23590	.00410	-.00070	-.00090
.000	14.000	.78250	.18940	-.26670	-.00410	.00000	-.00090
.000	16.030	.85150	.25120	-.29000	-.00140	.00040	-.00110
.000	18.010	.93050	.30920	-.30980	-.00160	-.00230	.00090
.000	20.100	.99260	.38240	-.32470	-.00410	.00050	.00050
.000	22.030	1.02310	.43070	-.32060	-.00650	.00460	.00050
.000	23.980	1.04260	.48820	-.31440	-.00920	.00120	.00380
.000	25.980	1.01510	.53230	-.28490	.00700	-.00760	.00770
.000	28.010	1.06780	.61170	-.29830	-.00340	.00060	.00260
	GRADIENT	.05216	.00303	-.01799	.00191	-.00000	-.00055

WIBIV1GC3 (RFH050) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 87/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02420	.03300	-.02390	-.00560	-.00080	.00070
.000	2.010	.12610	.03530	-.05980	-.00310	-.00100	.00070
.000	4.030	.23640	.04310	-.10100	-.00880	-.00050	.00150
.000	5.870	.33390	.05170	-.13650	-.00090	-.00140	-.00020
.000	8.000	.44530	.07320	-.17780	-.00110	-.00100	-.00020
.000	10.010	.56760	.10400	-.22090	-.00410	-.00100	-.00060
.000	12.010	.67320	.14490	-.25980	-.00430	-.00050	-.00010
.000	14.000	.77140	.19180	-.29750	.00080	-.00130	-.00170
.000	16.030	.84670	.25020	-.32610	-.00470	-.00080	-.00050
.000	18.010	.91460	.30950	-.35100	.00600	-.00150	-.00120
.000	20.100	.96490	.37270	-.36420	-.00180	.00390	-.00240
.000	22.030	.99570	.42790	-.37130	.00330	-.00210	-.00020
.000	23.980	1.00630	.48560	-.36850	-.00430	.00540	-.00520
.000	25.980	.97760	.52520	-.34760	.00370	-.00210	-.00130
.000	28.010	1.04470	.60570	-.37490	.00095	-.00090	-.00190
	GRADIENT	.05266	.00251	-.01913	-.00080	.00007	.00020

BIVIGC2 (RFH051) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 BETA = .000

RUN NO. 89/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.01640	.02570	.00030	.00000	-.00050	.00160
.000	2.010	-.00360	.02310	.01020	-.00250	-.00070	.00170
.000	4.030	.01350	.02640	.02230	.00030	-.00040	.00100
.000	5.870	.03030	.02150	.03440	.00050	-.00030	.00090
.000	8.000	.04890	.03220	.04850	.00350	.00000	.00020
.000	10.010	.07740	.03420	.06200	-.00170	.00010	.00080
.000	12.010	.10210	.04460	.07540	-.00140	.00020	.00080
.000	14.000	.13220	.06050	.09010	-.00110	.00050	.00120
.000	16.030	.15670	.07020	.10460	-.00090	.00040	.00170
.000	18.010	.18180	.08190	.12130	-.00330	.00070	.00220
.000	20.100	.21380	.10350	.13620	-.00300	.00120	.00190
.000	22.030	.23530	.11810	.15120	-.00820	.00180	.00290
.000	23.980	.26780	.14210	.15950	-.00260	.00150	.00280
.000	25.980	.29490	.16430	.17160	-.00240	.00160	.00330
.000	28.010	.32180	.18400	.18060	-.00490	.00200	.00300
	GRADIENT	.00742	.00017	.00546	.00008	.00002	-.00015

BIVIGC2 (RFH052) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067

RUN NO. 90/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	-.00280	.02780	-.00130	.09040	.00810	-.01980
.000	-4.000	-.00950	.03030	.00050	.05750	.00520	-.01220
.000	-2.000	-.01180	.03030	.00160	.04380	.00210	-.00630
.000	.000	-.01310	.03040	.00130	-.00540	-.00040	.00230
.000	2.000	-.01110	.02910	-.00090	-.02730	-.00390	.00900
.000	4.000	-.01030	.02590	-.00270	-.06570	-.00660	.01630
.000	6.000	-.00510	.02600	-.00630	-.10130	-.00910	.02290
	GRADIENT	-.00004	-.00055	-.00044	-.01587	-.00147	.00351

B1V1GC2 (RFH052) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067

RUN NO. 91/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.09410	.03460	.05280	.09400	.00420	-.01950
10.010	-4.000	.08660	.03330	.05850	.06670	.00280	-.01290
10.010	-2.000	.08140	.03720	.06160	.02290	.00130	-.00560
10.010	.000	.07740	.03420	.06250	-.00710	.00030	.00150
10.010	2.000	.08140	.03500	.06060	-.04270	-.00080	.00900
10.010	4.000	.08690	.03370	.05590	-.06740	-.00260	.01570
10.010	6.000	.09190	.03470	.05000	-.10030	-.00400	.02260
	GRADIENT	.00003	-.00007	-.00030	-.01669	-.00064	.00359

RUN NO. 92/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	.22970	.10420	.12250	.08710	.00280	-.01100
20.100	-4.000	.21800	.10500	.13070	.05700	.00100	-.00640
20.100	-2.000	.21290	.10310	.13480	.02970	.00060	-.00300
20.100	.000	.21170	.10280	.13500	-.01120	.00150	.00260
20.100	2.000	.21070	.10500	.13400	-.04140	.00120	.00620
20.100	4.000	.21730	.10250	.13140	-.06880	.00060	.01020
20.100	6.000	.22880	.10190	.12380	-.09080	-.00050	.01380
	GRADIENT	-.00018	-.00015	.00003	-.01613	-.00001	.00212

BIVI (RFH053) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067

RUN NO. 93/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
.000	-6.000	-.00390	.02080	-.00240	.09850	.00830	-.02170
.000	-4.000	-.01160	.02320	.00180	.06570	.00540	-.01410
.000	-2.000	-.01170	.02330	.00280	.03010	.00260	-.00640
.000	.000	-.01190	.02330	.00330	-.00260	-.00050	.00170
.000	2.000	-.00990	.02340	.00230	-.03280	-.00370	.00970
.000	4.000	-.00910	.02120	-.00170	-.06300	-.00660	.01560
.000	6.000	-.00070	.01900	-.00550	-.09040	-.00960	.02250
	GRADIENT	.00034	-.00020	-.00037	-.01601	-.00151	.00372

RUN NO. 94/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
10.010	-6.000	.04660	.02680	.01170	.09330	.00250	-.01900
10.010	-4.000	.03660	.02740	.01180	.06600	.00140	-.01240
10.010	-2.000	.03430	.02710	.02070	.02220	.00090	-.00540
10.010	.000	.03060	.02880	.02280	.00040	.00010	.00150
10.010	2.000	.03510	.02730	.02030	-.03790	-.00080	.00790
10.010	4.000	.03950	.02580	.01730	-.06250	-.00170	.01440
10.010	6.000	.04500	.02450	.01190	-.08720	-.00230	.02030
	GRADIENT	.00033	-.00015	-.00015	-.01585	-.00039	.00334

RUN NO. 95/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
20.100	-6.000	.10350	.06450	.02530	.09080	-.00210	-.01460
20.100	-4.000	.09630	.06190	.02920	.06630	-.00120	-.01010
20.100	-2.000	.09060	.06480	.03320	.03080	-.00010	-.00400
20.100	.000	.08950	.06450	.03420	-.00460	.00100	.00240
20.100	2.000	.08930	.06450	.03380	-.04290	.00220	.00910
20.100	4.000	.09470	.06160	.03090	-.07300	.00290	.01490
20.100	6.000	.10340	.06240	.02520	-.10040	.00370	.01860
	GRADIENT	-.00022	-.00004	.00020	-.01761	.00052	.00311

BIV1 (RFH054) (06 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 BETA = .000

RUN NO. 96/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.00750	.02100	.00315	-.00540	-.00050	.00120
.000	2.010	-.00360	.01850	.00700	-.00530	-.00010	.00170
.000	4.030	.00900	.01920	.00980	-.00520	.00000	.00170
.000	5.870	.01380	.02240	.01450	-.00520	-.00020	.00170
.000	8.000	.02190	.02410	.01800	-.00510	-.00010	.00170
.000	10.010	.03420	.02710	.02120	-.00500	.00020	.00160
.000	12.010	.04520	.03080	.02460	-.00490	.00000	.00170
.000	14.000	.05230	.03670	.02760	-.01030	.00040	.00290
.000	16.030	.06800	.04340	.03000	-.00480	.00020	.00210
.000	18.010	.07910	.04980	.03230	-.01020	.00080	.00330
.000	20.100	.09310	.06080	.03420	-.01010	.00100	.00320
.000	22.030	.10140	.06810	.03760	-.01280	.00110	.00320
.000	23.980	.11520	.07860	.03960	-.01000	.00120	.00310
.000	25.980	.12340	.09050	.04320	-.00990	.00140	.00240
.000	28.010	.13400	.09950	.04600	-.01250	.00180	.00280
	GRADIENT	.00410	-.00045	.00166	.00005	.00012	.00012

W2B1V1SC3

(RFH055) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 460.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000

RUN NO. 58/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.26530	.04850	-.19770	.00360	-.00150	.00020
.000	2.010	.37230	.06400	-.22260	.00080	-.00140	-.00010
.000	4.030	.49270	.08350	-.25350	.00350	-.00130	-.00020
.000	5.870	.60750	.10450	-.28240	.00340	-.00160	-.00010
.000	8.000	.73550	.14090	-.31490	.00060	-.00110	-.00010
.000	10.010	.84680	.18750	-.34650	-.00220	-.00050	.00040
.000	12.010	.94880	.24270	-.37860	-.00230	-.00020	-.00010
.000	14.000	1.05660	.30220	-.40980	.00570	-.00010	-.00100
.000	16.030	1.14770	.36900	-.43720	.00020	.00090	.00000
.000	18.010	1.24190	.44360	-.46790	.00830	.00020	-.00120
.000	20 100	1.34660	.52830	-.51170	.00800	-.00070	-.00200
.000	22.030	1.43300	.61860	-.54360	.00790	-.00070	-.00200
.000	23.980	1.47180	.69880	-.54170	.00810	.00040	-.00200
.000	25.990	1.45400	.76850	-.50630	.01940	-.00460	-.00550
.000	28.010	1.46240	.84150	-.48840	-.00430	.00670	-.00300
	GRADIENT	.05643	.00869	-.01385	-.00002	.00005	-.00010

W2B1V1SC3 (RFH056) (08 JUL 76)

REFERENCE DATA

PARAMETRIC DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

MACH = .067 ELEVN = -10.000

RUN NO. 59/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.21370	.03130	.16840	-.00920	-.00100	.00220
.000	2.010	-.11440	.03430	.15050	-.00920	-.00040	.00160
.000	4.030	-.00750	.03550	.12960	-.00920	-.00020	.00210
.000	5.870	.10380	.03980	.10660	-.00110	-.00070	.00080
.000	8.000	.22440	.05860	.07710	-.00660	-.00040	.00100
.000	10.010	.34620	.08370	.04290	-.00400	.00000	.00080
.000	12.010	.46120	.12100	.00930	-.00140	.00000	.00070
.000	14.000	.57700	.15750	-.02730	-.00160	-.00030	.00030
.000	16.030	.69070	.21000	-.06340	-.00170	.00010	.00070
.000	18.010	.80250	.27030	-.10380	.00080	.00100	-.00020
.000	20.100	.91760	.33800	-.15150	.00050	.00120	-.00250
.000	22.030	1.03120	.41990	-.19790	-.00520	.00000	-.00070
.000	23.980	1.12590	.49830	-.22220	.00290	.00130	-.00170
.000	25.980	1.19820	.58140	-.23940	.00830	-.00230	-.00310
.000	28.010	1.24750	.66640	-.24330	.00870	.00230	-.00580
	GRADIENT	.05117	.00104	-.00963	.00000	.00020	-.00002

W1B1V1H2F(1.0) (RFH057) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 747 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.00970	.03750	-.00520	.00000	-.00150	.00050
.000	2.010	.10960	.03940	-.05550	-.00310	-.00100	.00130
.000	4.030	.21190	.04150	-.10770	-.00080	-.00140	.00020
.000	5.870	.31970	.05990	-.16250	-.00400	-.00160	.00100
.000	8.000	.43670	.07250	-.22110	-.00710	-.00070	.00170
.000	10.010	.54150	.09770	-.27590	-.00210	-.00120	.00110
.000	12.010	.63510	.13520	-.32560	.00010	-.00160	.00070
.000	14.000	.72240	.17810	-.37360	-.00290	-.00020	.00170
.000	16.030	.76650	.23310	-.40400	.00500	-.00070	.00020
.000	18.010	.79790	.28000	-.42290	.00210	-.00250	.00180
.000	20.100	.79450	.32390	-.42560	.00230	.00120	-.00060
.000	22.030	.75450	.36410	-.41260	-.01090	.00590	.00120
.000	23.980	.75350	.39230	-.41670	-.00050	-.00350	.00390
.000	25.980	.76170	.43180	-.42660	-.01110	.00520	.00300
.000	28.010	.74780	.46490	-.42100	-.00290	.00200	.00380
	GRADIENT	.05017	.00099	-.02543	-.00020	.00002	-.00007

W1B1V1H2F(1,10) (RFH058) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 73/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.07820	.04750	-.07410	.00200	-.00150	.00060
.000	2.010	.17550	.05170	-.12480	-.00100	-.00110	.00080
.000	4.030	.28450	.06140	-.18000	-.00420	-.00060	.00090
.000	5.870	.38700	.07460	-.23230	-.00460	-.00060	.00100
.000	8.000	.50280	.09420	-.29200	-.00240	-.00060	.00050
.000	10.010	.60420	.12370	-.34530	-.00280	-.00020	.00110
.000	12.010	.70460	.16270	-.39920	-.00590	-.00030	.00180
.000	14.000	.79040	.21020	-.44730	.00180	.00010	.00100
.000	16.030	.85050	.27020	-.48640	.00420	-.00050	.00060
.000	18.010	.87500	.31320	-.49890	-.00390	-.00010	.00250
.000	20.100	.87420	.35630	-.49650	-.00370	.00400	-.00020
.000	22.030	.82730	.38900	-.46720	-.00620	.00230	.00150
.000	23.980	.78950	.40590	-.44470	-.00590	.00230	.00200
.000	25.980	.76460	.43330	-.42920	-.00570	.00440	.00140
.000	28.010	.75720	.46740	-.43000	-.02730	.00960	.00600
	GRADIENT	.05119	.00345	-.02628	-.00154	.00022	.00007

DATE 12 JUL 76

MA14 TABULATED SOURCE DATA

(RFH059) (08 JUL 76)

WIBIV1H2F(1,-10)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 72/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.08510	.05550	.06640	.00070	-.00100	.00040
.000	2.010	.03340	.04770	.01830	.00030	-.00130	.00100
.000	4.030	.13730	04970	-.03540	-.00270	-.00060	.00060
.000	5.870	.24120	.06060	-.08690	-.00310	-.00090	.00080
.000	8.000	.35270	.07190	-.14350	-.00090	-.00050	.00070
.000	10.010	.46600	.09550	-.20070	-.00400	-.00030	.00140
.000	12.010	.56120	.12840	-.25090	-.00450	-.00060	.00160
.000	14.000	.64050	.16660	-.29360	-.00200	.00110	.00170
.000	16.030	.69960	.21510	-.32310	.00310	-.00160	.00010
.000	18.010	.71690	.26280	-.34520	.00020	-.00080	.00120
.000	20.100	.73660	.30720	-.36760	.00280	.00080	.00000
.000	22.030	.71550	.34530	-.37200	-.00230	.00680	-.00240
.000	23.960	.72050	.37480	-.38960	.00260	.00140	-.00030
.000	25.980	.74540	.41600	-.41500	-.01910	.00740	.00580
.000	28.010	.73650	.45620	-.41430	-.00560	.00390	.00520
	GRADIENT	.05022	-.00144	-.02526	-.00084	.00010	.00005

W2B1V1H2F(1.-10)

(RFH060) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 69/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.06820	.05080	.07010	.00070	-.00070	-.00010
.000	2.010	.03460	.05000	.02140	.00310	-.00040	-.00070
.000	4.030	.14540	.05010	-.02850	.00270	-.00070	-.00060
.000	5.870	.24360	.05360	-.07280	-.00030	-.00100	-.00040
.000	8.000	.36630	.07350	-.12940	-.00070	-.00060	.00010
.000	10.010	.47220	.11060	-.17750	-.00370	-.00040	.00030
.000	12.010	.56630	.14340	-.21830	-.00400	.00000	.00080
.000	14.000	.65450	.18650	-.25430	-.00420	-.00030	.00150
.000	16.030	.73790	.23580	-.29020	-.00170	-.00010	.00080
.000	18.010	.85090	.29620	-.34280	.00330	-.00010	.00070
.000	20.100	.94970	.35750	-.38020	-.00220	.00220	.00110
.000	22.030	.96230	.39920	-.36540	-.01810	.00750	.00340
.000	23.980	.92520	.43670	-.34860	-.00177	.00190	-.00010
.000	25.980	.90430	.47410	-.35010	-.00450	.00180	-.00120
.000	28.010	.89180	.50330	-.35340	-.00180	.00080	-.00020
	GRADIENT	.05300	-.00017	-.02447	.00050	-.00000	-.00012

W2B1V1H2F(1,-10) (RFH061) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 70/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.27700	.05180	.22750	-.00310	-.00060	.00130
.000	2.010	-.17730	.04820	.18210	-.00070	-.00020	.00020
.000	4.030	-.06420	.04100	.13060	-.00390	-.00070	.00150
.000	5.870	.02770	.03940	.08850	-.00690	.00000	.00160
.000	8.000	.14480	.05030	.03750	.00080	-.00050	.00030
.000	10.010	.25600	.07340	-.01280	-.00490	.00000	.00100
.000	12.010	.36100	.10070	-.05800	-.00250	.00010	.00100
.000	14.000	.46280	.13730	-.10090	-.00550	.00000	.00170
.000	16.030	.54470	.17640	-.13270	-.00300	-.00060	.00240
.000	18.010	.65250	.22520	-.17850	-.00870	.00110	.00210
.000	20.100	.76940	.29010	-.22960	-.00890	.00350	.00120
.000	22.030	.83160	.34020	-.24860	-.00890	.00490	.00160
.000	23.980	.81970	.37830	-.22910	-.01400	.00600	.00110
.000	25.980	.80280	.41040	-.23240	-.00040	.00450	-.00180
.000	28.010	.77960	.43700	-.23760	.00200	.00130	-.00270
	GRADIENT	.05281	-.00268	-.02405	-.00020	-.00002	.00005

W2B1V:H2F(1.-10) (RFH062) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 71/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.15410	.08270	-.10190	.00190	-.00170	-.00040
.000	2.010	.25700	.08750	-.14880	-.00110	-.00120	.00030
.000	4.030	.37080	.09340	-.20230	-.00150	-.00160	-.00050
.000	5.870	.47470	.10720	-.25280	-.00190	-.00190	-.00040
.000	8.000	.59340	.14010	-.31090	- 01330	-.00080	.00140
.000	10.010	.69020	.17920	-.35400	-.00810	-.00070	.00190
.000	12.010	.77270	.22240	-.38500	-.00820	.00000	.00170
.000	14.000	.83970	.27030	-.41090	-.00560	.00060	.00090
.000	16.030	.93330	.33000	-.45760	-.00860	.00110	.00210
.000	18.010	1.04470	.39520	-.51020	-.00620	.00270	.00140
.000	20.100	1.10130	.45410	-.51870	-.01410	.00840	.00170
.000	22.030	1.03690	.47080	-.45970	-.01630	.00510	.00340
.000	23.980	1.00990	.51380	-.45260	-.01900	.00480	.00290
.000	25.980	.98040	.55130	-.45320	.00790	-.00180	.00040
.000	28.010	.97370	.58770	-.46100	-.01090	.00470	-.00180
	GRADIENT	.05377	.00266	-.02491	-.00084	.00002	-.00005

W2B1V1SC2 (RFH063) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = 10.000
BETA = .000

RUN NO. 99/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.27500	.06020	-.20300	.00080	-.00240	.00080
.000	2.010	.36960	.06870	-.23010	.00070	-.00200	.00040
.000	4.030	.48570	.08310	-.26280	.00600	-.00210	-.00020
.000	5.870	.59390	.11260	-.29490	.00050	-.00180	.00050
.000	8.000	.71830	.14590	-.33360	.00300	-.00210	.00050
.000	10.010	.82200	.19050	-.36320	.00020	-.00150	.00110
.000	12.010	.92910	.23630	-.39530	.00550	-.00210	.00000
.000	14.000	1.01690	.29490	-.42330	.00820	-.00090	-.00080
.000	16.030	1.12010	.36620	-.45730	.00530	-.00030	-.00030
.000	18.010	1.21630	.44310	-.49580	.00510	-.00090	.00160
.000	20.100	1.31880	.52350	-.53930	.00220	.00040	.00120
.000	22.030	1.39840	.61260	-.56930	-.00060	.00000	.00210
.000	23.980	1.43800	.68680	-.57660	.00480	-.00010	.00080
.000	25.980	1.44280	.75330	-.55710	.01080	.00210	-.00060
.000	28.010	1.41320	.81070	-.52660	.00830	-.00090	-.00020
	GRADIENT	.05229	.00568	-.01484	.00129	.00007	-.00025

W2B1V1SC2 (RFH064) (08 JUL 76)

REFERENCE DATA

SREF =	3420.0000 SQ.FT.	XMRP =	714.8000 IN.XO		
LREF =	507.1000 IN.	YMRP =	.0000 IN.YO		
BREF =	1115.8000 IN.	ZMRP =	400.0000 IN.ZO		
SCALE =	.0500				

PARAMETRIC DATA

MACH = .067 ELEVN = -10.000
BETA = .000

RUN NO. 100/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	-.22110	.03350	.17310	.00170	-.00040	.00120
.000	2.010	-.12440	.03160	.14660	.00160	-.00060	.00130
.000	4.030	-.01460	.03520	.11930	-.00120	-.00050	.00080
.000	5.870	.08930	.04560	.09430	.00140	-.00070	.00080
.000	8.000	.20700	.05160	.06220	.00130	-.00040	.00020
.000	10.010	.32150	.07960	.02740	.00110	-.00090	.00090
.000	12.010	.44760	.11130	-.01170	-.00440	-.00020	.00150
.000	14.000	.56260	.15170	-.05040	.00070	-.00020	.00130
.000	16.030	.67470	.20570	-.08880	.00330	-.00070	.00140
.000	18.010	.78230	.26410	-.13120	.00030	.00030	.00120
.000	20.100	.89050	.32850	-.17510	.00550	.00010	.00060
.000	22.030	.99250	.40200	-.21340	.00810	.00000	.00000
.000	23.980	1.07750	.47460	-.24390	.00250	.00010	.00070
.000	25.980	1.15140	.55120	-.26740	.01050	-.00130	.00000
.000	28.010	1.20440	.63080	-.28240	.01060	-.00030	-.00170
	GRADIENT	.05124	.00042	-.01335	-.00072	-.00002	-.00010

(RFH065) (08 JUL 76)

W2B1V1SC2

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = 2.000

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

RUN NO. 101/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
2.000	.000	.02880	.02820	-.01600	-.03010	-.00270	.00910
2.000	2.010	.12460	.03510	-.04050	-.03300	-.00330	.00930
2.000	4.030	.23870	.04300	-.07120	-.03040	-.00330	.00880
2.000	5.870	.34540	.06190	-.10020	-.04140	-.00360	.01040
2.000	8.000	.46470	.08250	-.13500	-.03070	-.00440	.00990
2.000	10.010	.57930	.11980	-.16900	-.03090	-.00460	.01010
2.000	12.010	.69420	.15840	-.20420	-.03380	-.00460	.01100
2.000	14.000	.80460	.21390	-.24210	-.03120	-.00370	.01040
2.000	16.030	.90620	.27400	-.27570	-.02860	-.00360	.01050
2.000	18.010	1.00960	.34230	-.31630	-.03150	-.00250	.01050
2.000	20.100	1.12290	.41790	-.36360	-.02640	-.00350	.01150
2.000	22.030	1.21580	.49930	-.39920	-.02930	-.00270	.01330
2.000	23.980	1.28170	.57240	-.41960	-.03200	-.00090	.01290
2.000	25.980	1.32980	.65540	-.43200	-.03990	.00580	.01230
2.000	28.010	1.35440	.72810	-.42860	-.03970	.00660	.01250
	GRADIENT	.05209	.00367	-.01370	-.00007	-.00015	-.00007

(RFH066) (08 JUL 76)

W2B1V1SC2

PARAMETRIC DATA

MACH = .067 ELEVN = .000
ALPHA = 16.030

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

RUN NO. 102/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
16.030	-6.000	.90240	.26530	-.28000	.09480	.00740	-.02520
16.030	-4.000	.90520	.27100	-.27760	.05920	.00570	-.01620
16.030	-2.000	.90660	.27390	-.27540	.03440	.00170	-.00840
16.030	.000	.90790	.27680	-.27510	-.00380	.00000	.00170
16.030	2.000	.91200	.27330	-.27740	-.03410	-.00330	.01120
16.030	4.000	.91440	.27160	-.28210	-.05890	-.00630	.01920
16.030	6.000	.91290	.27140	-.28660	-.09730	-.00800	.02670
	GRADIENT	.00119	.00003	-.00055	-.01523	-.00145	.00452

W2B1V1SC1

(RFH067) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
ALPHA = 16.030

RUN NO. 98/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
16.030	-6.000	.87500	.25800	-.32090	.10230	.00370	-.02480
16.030	-4.000	.87170	.26190	-.31670	.07490	.00250	-.01730
16.030	-2.000	.86950	.26130	-.31320	.03120	.00230	-.00840
16.030	.000	.87060	.26420	-.31570	.00090	-.00030	.00130
16.030	2.000	.87000	.26170	-.31590	-.03460	-.00210	.00980
16.030	4.000	.87080	.26200	-.31870	-.06210	-.00320	.01790
16.030	6.000	.86960	.25690	-.32210	-.08410	-.00490	.02540
	GRADIENT	-.00007	.00003	-.00034	-.01699	-.00079	.00443

W2B1V1GC2

(RFH068) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
ALPHA = 16.030

RUN NO. 103/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

ALPHA	BETA	CL	CD	CLM	CY	CSL	CLN
16.030	-6.000	.91010	.26540	-.30950	.09980	.00490	-.02740
16.030	-4.000	.91250	.26860	-.30780	.06960	.00190	-.01870
16.030	-2.000	.91280	.27120	-.30650	.03120	.00000	-.00940
16.030	.000	.91880	.27300	-.30970	-.00160	-.00140	.00050
16.030	2.000	.92160	.27400	-.31310	-.04530	-.00010	.01010
16.030	4.000	.92000	.27110	-.31290	-.06730	-.00240	.01890
16.030	6.000	.91870	.26610	-.31660	-.10310	-.00550	.02790
	GRADIENT	.00119	.00039	-.00083	-.01751	-.00043	.00473

W2B1V1 (RFH069) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 97/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02560	.03520	-.01940	.00250	-.00120	.00100
.000	2.010	.12060	.03280	-.06080	.00500	-.00120	.00050
.000	4.030	.22540	.04000	-.10440	.00740	-.00150	.00000
.000	5.870	.33400	.05420	-.15250	.00160	-.00100	.00070
.000	8.000	.44390	.07560	-.20160	.00390	-.00200	.00090
.000	10.010	.55440	.10680	-.25240	-.00460	-.00170	.00120
.000	12.010	.65640	.14660	-.29900	.00590	-.00240	.00000
.000	14.000	.76140	.19470	-.34930	.00560	-.00140	.00000
.000	16.030	.87180	.26080	-.40860	.01070	-.00090	-.00080
.000	18.010	1.00640	.32580	-.47380	.00210	.00100	.00050
.000	20.100	1.11830	.40050	-.52280	.00460	.00240	-.00060
.000	22.030	1.14400	.45400	-.52120	.00200	.00330	-.00040
.000	23.980	1.08970	.48550	-.48140	.00510	.00240	-.00090
.000	25.980	1.03160	.52140	-.45400	.00260	.00170	-.00180
.000	28.010	.97500	.55350	-.42610	.00830	-.00120	-.00170
	GRADIENT	.04958	.00119	-.02109	.00122	-.00007	-.00025

W2B1V1HIF(1.0) (RFH070) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0506

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 9/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.01180	.03040	-.00790	.00540	-.00120	.00030
.000	2.010	.11210	.03470	-.05370	-.00030	-.00040	.00060
.000	4.030	.22000	.03970	-.10260	-.00070	-.00070	.00070
.000	5.870	.32180	.04590	-.14760	.00160	-.00120	-.00030
.000	8.000	.44050	.06800	-.20150	.00390	-.00080	.00010
.000	10.010	.54650	.10780	-.25100	.00080	-.00130	.00040
.000	12.010	.64490	.14890	-.29370	.00330	-.00080	.00090
.000	14.000	.74330	.19250	-.33690	.00040	.00100	.00110
.000	16.030	.84180	.24950	-.38510	.00280	.00250	.00000
.000	18.010	.96100	.31320	-.44280	.01050	.00060	-.00010
.000	20.100	1.06680	.37890	-.48820	.00760	.00250	-.00020
.000	22.030	1.09550	.43160	-.48400	.00230	.00240	.00100
.000	23.980	1.05180	.46320	-.45090	.00010	.00690	-.00170
.000	25.980	.99720	.50440	-.42540	.00560	.00010	-.00050
.000	28.010	.93380	.52860	-.39260	.01140	.00140	-.00280
	GRADIENT	.05166	.00231	-.02350	-.00151	.00012	.00010

W2B1V1F (RFH071) (08 JUL 76)

REFERENCE DATA

SREF = 3420.0000 SQ.FT. XMRP = 714.8000 IN.XO
LREF = 507.1000 IN. YMRP = .0000 IN.YO
BREF = 1115.8000 IN. ZMRP = 400.0000 IN.ZO
SCALE = .0500

PARAMETRIC DATA

MACH = .067 ELEVN = .000
BETA = .000

RUN NO. 43/ 0 RN/L = .00 GRADIENT INTERVAL = -5.00/ 5.00

BETA	ALPHA	CL	CD	CLM	CY	CSL	CLN
.000	.000	.02970	.03300	-.02470	-.00290	-.00110	.00070
.000	2.010	.12490	.03060	-.06380	-.00590	-.00100	.00140
.000	4.030	.22670	.03550	-.10760	.00460	-.00160	-.00040
.000	5.870	.32930	.04670	-.15190	-.00110	-.00100	.00030
.000	8.000	.44520	.06650	-.20370	-.00150	-.00130	.00040
.000	10.010	.55750	.10740	-.25450	-.00450	-.00110	.00110
.000	12.010	.65370	.14840	-.30040	.00050	-.00080	.00090
.000	14.000	.75680	.19110	-.34650	.00290	-.00090	.00040
.000	16.030	.86680	.25440	-.40750	.00250	.00090	.00050
.000	18.050	.98140	.23330	-.44660	.00750	.00000	-.00040
.000	20.100	1.10260	.39230	-.52000	-.00080	.00290	.00050
.000	22.030	1.12960	.44310	-.51750	-.00330	.00560	.00050
.000	23.980	1.10020	.48510	-.49130	-.00300	.00570	-.00030
.000	26.990	1.01060	.42450	-.42060	.01620	-.00320	-.00220
.000	28.010	.99670	.54920	-.43630	.01900	-.00330	-.00220
	GRADIENT	.04888	.00062	-.02057	.00186	-.00012	-.00027